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February 22, 1989

BIND

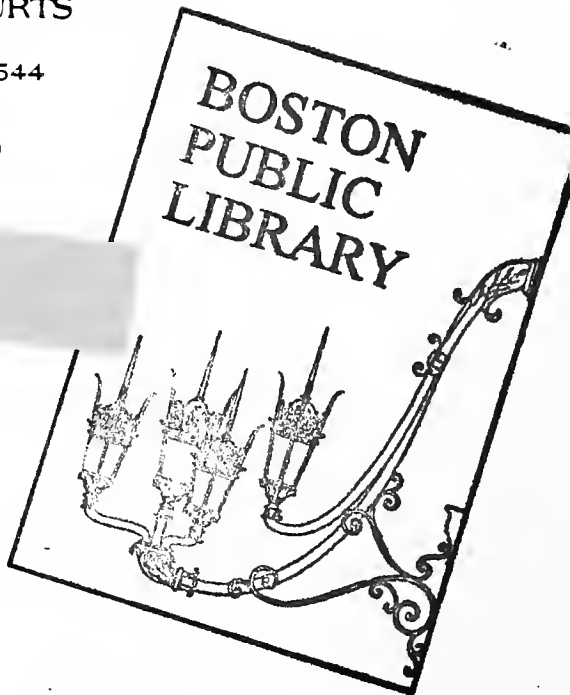
Honorable Robert C. Byrd
Chairman, Committee on Appropriations
United States Senate
136 Senate Dirksen Office Building
Washington, D.C. 20510

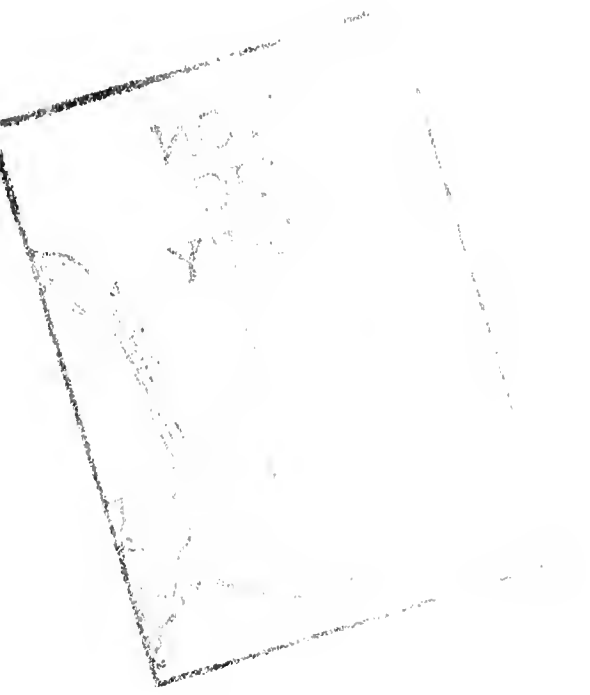
Honorable Jamie L. Whitten
Chairman, Committee on Appropriations
United States House of Representatives
H-218 Capitol Building
Washington, D.C. 20515

Dear Mr. Chairmen:

We have completed an analysis and a study of the need for and feasibility of constructing a new Federal Courthouse in Boston, Massachusetts, in accordance with the direction by the Conference Committee on Judiciary Appropriations for fiscal year 1989 (H.R. Conf. Rep. No. 100-979, 100th Cong., 2d Sess. 50). It is the conclusion of our analysis that the John W. McCormack Post Office and Courthouse is inadequate to meet the current needs of the courts, and that even when renovated as planned by the General Services Administration, the facility will not meet the current and long-term requirements of the courts in Boston. We have further concluded that a new facility, constructed for the long-term needs of the U. S. courts in Boston, is not only the single most effective way to meet the courts' space requirements, but also will be less expensive than the planned extensive renovation of the McCormack Building.

In this analysis, we had the assistance of Space Management Consultants, Inc., of Seattle. Space Management Consultants is one of the nation's leading courthouse design and planning firms and has been separately engaged in a revision of the Court Design Guidelines for the Federal Judiciary. The firm was asked to analyze the capacity of the McCormack Building as it now exists and with the renovations proposed by the GSA, to determine whether it can meet the courts' current and long-term facility needs. In its building evaluation report the firm concluded that "the existing physical configurations of the J.W. McCormack Post Office and Courthouse building will continue to impose serious obstacles to the efficient and secure operation of the courts regardless of the extent of





Honorable Robert C. Byrd
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renovation and reorganization made within the building." The report indicates that even with a multi-million dollar renovation program the McCormack building:

(1) will not meet basic security standards; (2) will not have appropriate circulation plans (judges' chambers will still be located on floors far away from their courtrooms and judges, jurors, prisoners and witnesses will still be forced to ride the same elevators and travel the same halls); (3) will not provide adequate space for the present needs of the court; (4) will not provide expansion space; (5) will continue to have significantly undersized courtrooms and chambers; and (6) will still lack appropriate adjunct facilities, such as attorney/client conference rooms.

The report also states that it would be extremely difficult to keep the courts fully operational through the renovation period, a conclusion with which the judges of the First Circuit Court of Appeals and the Massachusetts District Court strongly agree. The report concludes that "a new courthouse should be planned, designed and constructed in downtown Boston to meet the facility needs of the U.S. Circuit Court of Appeals and the District Court." The complete report of Space Management Consultants is enclosed for your information.

In addition to cataloguing the deficiencies of the McCormack Building as a Federal courthouse, we also examined the costs associated with constructing a new courthouse compared to the costs of renovating the McCormack Building. In making the comparison, we sought the advice of the Office of the Mayor of Boston. Mayor Flynn directed the Boston Redevelopment Authority to review available sites and provide recommendations on the most suitable for a new courthouse. The report prepared by the Boston Redevelopment Authority, which is also enclosed for your review, ranks as most appropriate the site of the John F. Kennedy Annex at Government Center in Boston. Because of its size, configuration, and easy access to public transportation and parking, the study states that the JFK annex site is by far more preferable than the three other recommended sites. The other sites have significant deficiencies, including irregular site configuration, public transit access, and legal encumbrances. After carefully reviewing the Mayor's report, the judges of the First Circuit Court of Appeals and the District of Massachusetts unanimously have concluded that the JFK annex site clearly is the most appropriate available location for a new courthouse.

Using the JFK annex site for purposes of comparison, we asked the firm of GA/Partners, a consulting firm familiar with the Boston area and experienced in preparing economic feasibility studies, to assess and compare the costs of renovating the McCormack Building and constructing a new courthouse, either through traditionally funded means or through a

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public-private sector partnership as has been used in a number of projects, including Foley Square in New York City and the new Judicial Administration Building in Washington. GA/Partners has found that the most expensive housing option would be rehabilitating the J.W. McCormack Post Office and Courthouse. Its report finds that the second most expensive option would be government financed construction at the JFK annex site, while the least expensive option would be privately financed new construction at the JFK annex site. Based on extensive economic analysis, the report concludes that "construction of a new courthouse building at the JFK annex site, either through a government-build or privately-build option, represents the most economical solution to meeting the Court's future housing needs." A copy of this analysis also is enclosed for the Committee's reference.

In addition we have also enclosed, to demonstrate broad community support for the project, copies of lead editorials from both of Boston's major daily newspapers calling for construction of a new federal courthouse on the JFK annex site. Finally, we have enclosed a copy of a resolution also calling for the construction of a new courthouse that was adopted by a committee of 30 leading members of the New England Bar. The committee is co-chaired by James D. St. Clair, former special counsel to President Nixon and Richard K. Donahue, former special consultant to President Kennedy.

We hope the Committee will find the enclosed information useful in determining the most beneficial means of providing adequate short-and long-term court facilities in Boston. On behalf of the Judiciary and, in particular, the courts in Boston, we thank you for your interest and appreciate your concern about this important matter. We are prepared to respond to Congressional inquiry and direction in finding an appropriate solution to this serious housing need of the courts.

Sincerely,

<i>Levin H. Campbell</i>	<i>Douglas P. Woodlock</i>	<i>L. Ralph Mechem</i>
Levin H. Campbell	Douglas P. Woodlock	L. Ralph Mechem
Chief Judge	United States District Judge	Director
United States	District of Massachusetts	Administrative Office
Court of Appeals	Chairman, Boston	of the United States
for the	Courthouse Building Committee	Courts
First Circuit		

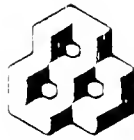
Enclosures

cc: Honorable Ernest F. Hollings
Honorable Neal Smith
Honorable Joseph D. Early

Honorable Mark O. Hatfield
Honorable Silvio O. Conte
Honorable Warren B. Rudman
Honorable Harold Rogers

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February 13, 1989



SPACE MANAGEMENT CONSULTANTS, INC.

F. MICHAEL WONG Ph.D. (Arch. SC.), B. Arch. (Hons.), Dip T.C.P., FRAIA, AIA, ARIBA, MRAPI, NCARB PRESIDENT

January 23, 1989

Mr. Vincent Flanagan
Acting Circuit Executive
U.S. Court of Appeals
John W. McCormack Post Office & Courthouse
Boston, Massachusetts 02109

Dear Mr. Flanagan:

Space Management Consultants, Inc. (SMC) is pleased to submit the final report on our project to evaluate the J.W. McCormack Post Office & Courthouse in its provision of court facilities for the U.S. Court of Appeals and District Court in Boston, Massachusetts. As you will note from the body of this report, our evaluation of the McCormack building has shown that even if a multi-million dollar renovation is performed, the existing building cannot be made to satisfy the complex facilities needs of the courts adequately or suitably. Therefore, we have concluded that a new courthouse should be planned, designed and constructed to provide for the long-term space requirements of the federal courts in Boston.

SMC is pleased to have had this opportunity to assist the courts in their efforts to assure that their facilities provide for the fair, efficient and secure administration of justice. We especially wish to thank you and Judge Woodlock for your assistance throughout the course of our involvement in this project. If SMC can be of further assistance to the courts, please do not hesitate to contact us.

Cordially,
SPACE MANAGEMENT CONSULTANTS, INC.

F. Michael Wong, Ph.D., AIA
President

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EXECUTIVE SUMMARY

The Administrative Office of the U.S. Courts (AOUSC) requested the services of Space Management Consultants, Inc. (SMC) to assist in the determination of whether the existing J.W. McCormack Post Office and Courthouse should be renovated or a new building be constructed to accommodate the long-term needs of the Federal Court System in Boston. Considerable planning work had previously been completed, and another project is currently in progress, to renovate the existing building, which was determined eligible for listing in the National Register in October, 1987.

Because the primary objective of this project is to determine the adequacy and suitability of the existing courthouse to accommodate court needs, the approach chosen was to evaluate the limitations and deficiencies of the existing building as compared to those of a new court building. This evaluation includes several elements: the review of previous planning studies and an investigation of the problems, deficiencies and limitations of the various space types now used by the courts.

SMC's analysis shows that the existing physical configurations of the J.W. McCormack Post Office and Courthouse will continue to impose serious obstacles to the efficient and secure operation of the courts regardless of the extent of renovation and reorganization made within the building.

- The McCormack building does not meet basic security standards and even with a multi-million dollar renovation program the building can not be made secure.
- The courtrooms in the McCormack building are all undersized by current design standards and do not have appropriate adjunct facilities. Because of the space limitations and unique configuration of the building, renovation can not provide properly sized courtrooms or appropriate adjunct facilities.
- The circulation pattern in the McCormack building, in addition to creating security problems, is inappropriate for efficient court operations. Renovations might improve this situation slightly but would fall far short of removing the problem entirely.
- Because of the size limitation of the McCormack building (370,000 occupiable square feet), there will be no room for court expansion with or without renovation, and even with renovation the various court-related spaces would not meet the size standards of the United States Court Design Guide, published by the General Services Administration.
- It would be extremely difficult to keep the courts fully operational through the renovation period, which is likely to continue for five years or more.

SMC's evaluation of these major elements and others of the J.W. McCormack Post Office and Courthouse suggests potential suitability for use as an office building for federal and/or other tenants, and as a post office, rather than as a federal court building. However, the building can never satisfy the functional and safety needs of the courts.

In view of these and other considerations, SMC concludes that a new courthouse should be planned, designed and constructed in downtown Boston to meet the facility needs of the U.S. Circuit Court of Appeals and the District Court. Such a new structure, if properly programmed and planned, would provide adequate and suitable facilities to accommodate both short- and long-term needs of the courts. Of the four alternative sites identified in the Mayor's site analysis report, the most appropriate for these purposes appears to be the JFK Annex site at the City Hall Plaza.

EVALUATION OF COURT FACILITIES FOR THE U.S. COURT OF APPEALS AND
DISTRICT COURT IN BOSTON, MASSACHUSETTS

INTRODUCTION

The Administrative Office of the U.S. Courts (AOUSC) requested the services of Space Management Consultants, Inc. (SMC) to assist in the determination of whether the existing John W. McCormack Post Office and Courthouse should be renovated or a new court building be constructed to accommodate the long-term facility needs of the Federal Court System in Boston. Considerable planning work had previously been completed on recommendations to renovate the building, which was determined eligible for listing in the National Register in October, 1987. Another project is currently underway to program and master plan this building for the short- and long-term facility needs of the U.S. Court of Appeals and District Court, and their support functions in downtown Boston.

SMC entered into an agreement with the Office of the Circuit Executive in Boston in November to complete this assignment within a two-month period. SMC's project team members were on-site to tour the building on November 10 and 11, 1988; Table 1, found at the end of this section, presents an overview of the major space uses on each floor of the building as of SMC's site visit. Other pertinent information, data, and statistics were compiled by November 18, 1988. Among the major reports reviewed by SMC are:

1. Boston Building Committee Report, dated October 18, 1982, by the Building Committee, directed by the Circuit Council.
2. Feasibility Study and Plan for U.S. Courts Expansion in the J.W. McCormack Post Office and Courthouse, Boston Massachusetts. Completed in February, 1985, by A. Anthony Tappe and Associates, Inc.
3. Site Analysis for a Federal Courthouse, Boston, Massachusetts. Completed in October, 1988, by Office of the Mayor, City of Boston, Massachusetts.
4. Draft report on programming and renovation of the J.W. McCormack Post Office and Courthouse in Boston, Massachusetts, October, 1988 by HO+K.

In addition, various recent reports and technical papers related to this project were compiled, reviewed and analyzed. These were provided by the Office of the Circuit Executive.

Because the primary objective of this project is to determine the adequacy and suitability of the existing courthouse to accommodate the long-term needs of the court system, the approach chosen was to evaluate the limitations and deficiencies of the existing building as compared to those of a new court building. Since considerable previous work has already been completed, a synopsis of such work to form an information base is essential to this feasibility study. Having completed this task, and based on information obtained and observations made from touring the existing building, SMC's project team developed a methodology and format for the detailed evaluation and assessment of existing conditions in the building. Limitations on use of the

existing building as a court facility for the U.S. Court of Appeals and District Court were defined. Potential strategies for improvement or alleviation of these limitations through renovation of existing facilities were evaluated, and the advantages and disadvantages of constructing a new court building to eliminate these limitations were analyzed.

SMC's primary conclusion is that the existing structural configuration, ceiling height variations, and singular circulation system of the existing building will continue to impose serious obstacles to efficient and secure operation of the court system, regardless of the extent of renovations and improvements made within the building's envelope. The limitations of the existing building are so overwhelming that no amount or degree of internal renovation will adequately satisfy the functional and safety needs of the court system. The General Services Administration's (GSA) 1988 internal cost analysis concluded that the 30 year present value of a renovated J.W. McCormack Post Office and Courthouse is approximately \$35 million more than that of a newly constructed court building in downtown Boston. The configuration and layout of the J.W. McCormack Post Office and Courthouse, particularly the double-loaded singular corridor system throughout the building, points conclusively to its suitability for use as an office building for federal and/or other tenants and as a post office rather than a courthouse. As respects programming for future needs, the various previous reports projected different square footage requirements. Before a new courthouse can be built these differences need to be resolved. However, at this time these differences are not critical in determining whether to renovate the existing building or build a new building due to the basic inadequacies and deficiencies of the existing building discussed above.

In view of these and other considerations, SMC concludes that a new federal courthouse should be planned, designed and constructed in downtown Boston to house the long-term facility needs of the U.S. Circuit Court of Appeals and District Court. Such a new structure, if properly planned, will provide the following elements essential to the efficient and safe operation of the court system:

1. Separation of public, private or restrictive, and secured prisoner circulation patterns for maximum security, safety and privacy.
2. Accommodation of facility needs that are not provided in the existing building such as jury deliberation rooms; witness waiting and attorney conference rooms; soundlock entries to courtrooms; staff lounges; and other space requirements, resulting from the changing needs of the court system.
3. Optimal functional and spatial relationships, circulation systems and accessibility control throughout the entire building.
4. Convenient circulation and access for judges and support staff between courtrooms, chambers, jury deliberation rooms, robing/conference room, and support offices.
5. Easy identification and accessibility of the public to clerical offices and other public-accessible departments.
6. Adequate and flexible power access for multiple computer and other office equipment at each work station and office, and for specialized audio/video and security equipment throughout the court building.
7. Appropriate environmental control to provide optimal comfort conditions for individual operational and personnel needs at various types of work stations, offices, courtrooms, etc.

8. Optimal acoustical treatment of building structure and finish surfaces for various levels of noise conditions, including special acoustical requirements by both audio/video recording and speech hearing by trial participants in courtrooms; soundproofing of jury deliberation rooms and grand jury rooms; and sound transmission between noisy and quiet adjacent spaces; etc.
9. Adequate provision to accommodate the programmed expansion of the court system over the long term.

The Mayor's site analysis report identifies four alternative sites in downtown Boston that are adequate to accommodate the projected needs of the U.S. Court of Appeals and the District Court. Of these four, the most appropriate site, in terms of land ownership, prominence to create an appropriate image, adequate land area, accessibility to public transportation, and proximity to the government center, is the site of the JFK Annex at the City Hall Plaza. This four-story annex is scheduled for major renovation, and the current occupants, all federal and government employees, can easily be accommodated ultimately in a renovated J.W. McCormack Post Office and Courthouse once the court system relocates to a new courthouse. Those tenants will in any event have to be relocated under current renovation plans for the JFK Annex. If the JFK Annex site were used for the new courthouse, only modestly more substantial provision than is presently planned would have to be made for temporary relocation of the current occupants of the JFK Annex during the construction of the new courthouse and the renovation thereafter of the existing J.W. McCormack Post Office and Courthouse.

Table 1

Evaluation of the J.W. McCormack Post Office & Courthouse
EXISTING SPACE USES (As of November 11, 1988)

FLOOR:	COURT & COURT-RELATED USES:	NON-COURT-RELATED USES:	BUILDING SERVICE AREAS:	OTHER AREAS:
22			- Mechanical Space	
21			- Mechanical Space	- Vacant Space
20	- District Court Chambers and Ancillary Spaces: 1 resident judge - Court Reporters			
19	- District Court Chambers and Ancillary Spaces: 2 resident judges			
18	- District Court Chambers and Ancillary Spaces: 2 resident judges			
17	- Circuit Court Chambers and Ancillary Spaces: 2 non-resident judges - Circuit Court Staff Attorneys - Computer Aided Legal Research Unit			
16	- Circuit Court Chambers and Ancillary Spaces: 2 resident judges, 2 nonresident judges, 1 senior judge - District Court Chambers and Ancillary Spaces: 1 resident judge, 1 senior judge - Circuit Court Clerk's Office - Court Reporter			
15	- District Court Chambers and Ancillary Spaces: 2 resident judges - 1 District Court Courtroom and Ancillary Spaces - 1 Circuit Court Courtroom and Ancillary Spaces (also used by the District Court) - U.S. Marshals			- Vacant Space (planned for renovation for use as: chambers ancillary spaces for the Chief Circuit Court Judge and a non-resident judge; storage space for the Circuit Court; a conference room; and a training room)

Table 1, continued
 Evaluation of the J.W. McCormack Post Office & Courthouse
 EXISTING SPACE USES (As of November 11, 1988)

FLOOR:	COURT & COURT-RELATED USES:	NON-COURT-RELATED USES:	BUILDING SERVICE AREAS:	OTHER AREAS:
14	- Office of the Circuit Executive - U.S. Marshal's Office	- Bureau of Prisons		- Vacant Space (to be renovated for use as judicial chambers and ancillary areas; and expansion of the U.S. Marshal's Office)
13	- 5 Jury Deliberation Suites - 3 Grand Jury Hearing Suites - Law Library			- Vacant Space
12	- 5 District Court Courtrooms & Ancillary Spaces - Court Reporters - Law Library		- News Media Facilities	
11	- 1 District Court Courtroom & Ancillary Spaces - District Court Chambers and Ancillary Spaces: 1 senior judge, 1 resident judge - 2 Magistrate Courtrooms - 1 Jury Deliberation Suite - U.S. Attorney's Office		- Storage Space	- Vacant Space
10	- U.S. Attorney's Office			
9	- 3 Magistrate Courtrooms - Chambers & Ancillary Spaces: 4 Magistrates - Magistrates' Court Clerks - U.S. Attorney's Office - Probation Office			
8	- U.S. Marshal's Office - Pre-Trial Services Office	- Department of Labor		- Vacant Space
7	- District Court Clerk's Office	- Securities Exchange Commission		
6	- District Court Clerk's Office - Department of Justice, New England Organized Crime Strike Force			

Table 1, continued
 Evaluation of the J.W. McCormack Post Office & Courthouse
 EXISTING SPACE USES (As of November 11, 1988)

FLOOR:	COURT & COURT-RELATED USES:	NON-COURT-RELATED USES:	BUILDING SERVICE AREAS:	OTHER AREAS:
5	- District Court Chambers and Ancillary Spaces: 1 non-resident judge	- Federal Emergency Management Administration - Postal Inspector - Inspector General's Office - Department of Labor - AFGE Local 3893	- Telephone System Equipment	- Vacant Space
4		- Federal Emergency Management Administration - Red Cross - Occupational Safety & Health Administration - Administrative Law Judges, Department of Labor - Railroad Retirement Board - Federal Health Unit		
3	- 3 District Court Courtrooms & Ancillary Spaces - District Court Chambers and Ancillary Spaces: 2 resident judges - 4 Jury Deliberation Suites - Jury Assembly Room/Lounge - Judges' Lunchroom	- Conference Room: General Services Administration - Federal Emergency Management Administration	- Cafeteria - Janitorial Office, Lockers & Supplies Storage	
2	- 3 District Court Courtrooms & Ancillary Spaces (currently under construction) - Court Reporters	- Department of Education	- Storage & Mechanical Spaces	
1		- U.S. Postal Service - General Services Administration	- Snack Bar Concession	- Entries from Milk, Water and Devonshire Streets
B		- U.S. Postal Service - Federal Protective Service	- Storage, Mechanical & Rubbish Disposal Spaces - Parking & Loading Areas	- Entry from Congress Street
SB			- Storage & Mechanical Spaces	

REVIEW OF PREVIOUS STUDIES

Prior to the commencement of SMC's evaluation of the J.W. McCormack Post Office & Courthouse, several other studies of the building and the facilities needs of the U.S. Courts in Boston had been commissioned, including the following:

- The Boston Building Committee Report to the Circuit Council;
- A Feasibility Study and Plan for U.S. Courts Expansion in the J.W. McCormack Post Office & Courthouse, performed by A. Anthony Tappe & Associates, Inc., Architects and Planners;
- A Management Plan and Prospectus for Repair and Alteration of the building, prepared by the General Services Administration;
- A Site Analysis for a Federal Courthouse, prepared by the Office of the Mayor of Boston; and
- A Five-Year Growth Projection and Space Planning Study for renovation of the building, performed by architects Hellmuth, Obata & Kassabaum in association with the Stone & Webster Engineering Corporation.

SMC has reviewed the reports for each of these studies, as a means of building an information base. We have not, however, attempted detailed analyses of these previous efforts nor have we evaluated the quality of the information presented. The material presented below provides a synopsis of each of these reports, to provide a central source highlighting the different view points and conclusions of the various studies.

SYNOPSIS OF THE BOSTON BUILDING COMMITTEE REPORT

The Boston Building Committee Report was completed in October, 1982. The report is comprised primarily of memoranda, prepared by judges and other court personnel, surveying the extent to which the facilities in the McCormack building comply with the standards set forth in the U.S. Courts Design Guide, and describing the numerous violations of those standards. The major points raised by the Building Committee are summarized below:

1. Heating and air conditioning systems do not function evenly throughout the building. The temperatures in some spaces range from 50 degrees in the winter to 90 degrees in the summer.
2. Elevators are slow and subject to delays and breakdowns. Waits of up to 10 to 15 minutes are not uncommon.
3. General maintenance of the building should be improved. Some areas are not clean, there are water leaks, and some areas need to be painted and updated.
4. Lighting is inadequate in many instances.
5. Acoustics need to be improved. People standing in hallways can hear what is said inside the jury rooms and noise from the corridors can be heard in the courtrooms.
6. Spaces accommodating similar uses (e.g., courtrooms) vary significantly in size and are smaller than the U.S. Design Guideline standards in many instances.
7. Judge's chambers and courtrooms are located too far from each other.

8. There are no attorney conference rooms nor witness waiting rooms.
9. The absence of comfort and convenience features discussed in the guidelines was noted - bathrooms, kitchenettes, coffee facilities, conference rooms.
10. Circulation patterns are mixed, which compromises security. The judges, public and in-custody defendants all must use the same corridors and elevators.
11. No prisoner holding cells are provided adjacent to the courtrooms.
12. Since judges, jurors, attorneys, witnesses and defendants intermingle in the mixed circulation, improper communication could lead to the disruption of trials.

SYNOPSIS OF THE TAPPE REPORT

In 1985 the firm of A. Anthony Tappe & Associates (TAPPE) completed a study of the feasibility of expanding the occupancy of the Circuit and District Courts within the existing McCormack building¹. While the primary focus of this study was development of plans for reconfiguration of the building to accommodate expansion of the Courts, it also addressed guidelines regarding decor and directional signage, developed a recommended solution to problems associated with the public elevators, and provided budget estimates of the costs of implementing the plan's recommendations.

The TAPPE planners developed two schemes (A and B), each of which provides detailed recommendations for extensive reorganization of the existing building to meet the Courts' projected short- and long-term space needs, as well as those of court-related departments and agencies; the long-term needs of these users are met by reducing the amount of space available for use by agencies not directly related to the administration of justice. The differences between these schemes occur in the details of space assignments throughout the building. The facility programs on which these two schemes were based are summarized in Table 2 on the following page. The TAPPE planners estimated that the costs of implementing Scheme A through its 20-year recommendations would amount to about \$44.7 million; and those for Scheme B would be about \$44.5 million².

The TAPPE report notes that the development of the two program schemes was constrained by two factors. The first of these constraints was the need to accommodate the projected needs of the Courts within the structural, spatial and service limitations of the existing building. These limitations required the TAPPE planners to accept and perpetuate many of the faults of the existing building while attempting the difficult task of fitting functional spaces into areas unsuited to the requirements of those spaces. The second constraining factor was comprised of the need to relate development of the programs to the standards set forth in the U.S. Courts Design Guide³. While the Design Guide

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1. Feasibility Study and Plan for U.S. Courts Expansion in the J.W. McCormack Post Office & Courthouse, A. Anthony Tappe & Associates, Inc., GSA Contract GS-01C-4012, February, 1985.
 2. Ibid, pages 86, 111 & 117. Both estimates include the cost of elevator refurbishment and are stated in terms of 1984 dollars.
 3. United States Courts Design Guide, General Services Administration, Public Buildings Service, March 9, 1984.

presents some useful information, it does not include currently accepted size standards, fails to address provision of many critical spaces, and does not provide designers with sufficient information regarding functional and spatial relationships.

Thus, although TAPPE's proposed schemes are fairly successful in "making the best of a bad situation," they should not be construed as representing an optimal solution to the problem of providing adequate facilities for the Federal Courts in Boston.

Table 2
SUMMARY
FACILITY PROGRAM FROM THE TAPPE REPORT (1985)

NET PROGRAMMED AREA				
COURT/AGENCY/USE GROUP:	SCHEME A		SCHEME B	
	6-Year	20-Year	6-Year	20-Year
Court of Appeals	43,973	52,768	44,076	50,333
District Court	112,970	148,705	119,819	149,535
Court Reporters	6,922	10,465	7,138	10,411
Grand Jury	8,621	8,621	8,621	8,621
U.S. Attorney	40,210	49,790	40,210	49,790
Strike Force	8,119	9,455	8,119	9,455
U.S. Marshal	13,918	18,103	13,918	18,103
Probation	7,208	9,077	7,208	9,077
Pre-Trial Services	*	*	*	*
Bureau of Prisons	*	*	*	*
Press Facilities	3,516	4,296	3,516	3,516
Food Services	9,282	4,994	11,700	11,700
SUBTOTAL	254,739	316,274	264,325	320,541
Other Agencies	111,528	55,086	106,343	47,879
TOTAL PROGRAMMED AREA	366,267	371,360	370,668	368,420

*NOTE: Not addressed as a separate element; assumed included in "Other Agencies."

SYNOPSIS OF GSA's REPAIR & ALTERATION MANAGEMENT PLAN

In early 1988, GSA prepared a draft management plan calling for extensive repairs of and alterations to the McCormack building⁴. The scope of this plan encompassed expansion and upgrading of court facilities; upgrading of heating, ventilating and air conditioning systems; modernization of restrooms; provision of a new domestic water system; replacement of exterior windows; and upgrading of building security. This work was proposed as the major component of a program to provide for the long-range space requirements of the courts in Boston. GSA estimated that the work proposed by this plan would entail construction costs of about \$54.7 million and additional costs of up to \$8.0 million to lease space for interim relocation of the building's current occupants.

4. Management Plan & Prospectus - Repair and Alteration, J.W. McCormack Post Office and Courthouse, Boston, Massachusetts, Prospectus Number PMA-00134, General Services Administration, undated draft.

In developing its proposed plan, GSA analyzed three alternatives: (A) permanent relocation of all occupants of the McCormack building to leased space; (B) construction of a new federal courthouse in Boston; and (C) renovation of the existing building. The agency evaluated the 30-Year Present Value Costs (PVC) of each of these alternatives, concluding that the PVC of Alternate (A) would be \$179,375,000, that of Alternate (B) would be \$110,972,000, and that of Alternate (C) would be \$145,759,000.

The draft chose to adopt Alternate (C) as its preferred plan, despite the fact that renovation of the existing building is expected to have a PVC of greater than 30 percent more than that of providing a new courthouse. The justification for this decision was based on two factors:

- the supposition that the work would produce a modern, functional and secure courthouse, and
- the desirability of preserving a historically and architecturally significant Government asset, a building which is eligible for listing on the National Register.

The validity of the first supposition is questionable. SMC's evaluation of the McCormack building, which is documented in a later section of this report, has shown that the existing facility cannot be made to adequately serve even the most basic of the complex functional and space needs of the courts. Most importantly, this building cannot accommodate the stringent security provisions required by the Federal judiciary.

The desirability of preserving the building is apparent, but can perhaps best be accomplished by renovating the structure to accommodate numerous office uses. It should be remembered that the McCormack building was originally designed as primarily an office building and was never intended to accommodate more than the original courtrooms on the twelfth and fifteenth floors. To return the building essentially to its original office occupancy, which is both appropriate and historically consistent, will preserve not only the structure but also the intent of its builders.

SYNOPSIS OF THE MAYOR'S REPORT

In June, 1988, the Office of the Mayor of Boston and the Boston Redevelopment Agency undertook an initial study to determine a design program for a new Federal Courthouse and to identify potential sites where such a facility could be constructed consistent with the development plans for the City of Boston⁵. The study, which was submitted to the Court on October 19, 1988, preliminarily defined the courts, departments and agencies which should occupy a new federal courthouse; developed schematic floor plans to meet modern security and court operational standards; and identified and evaluated a number of sites in downtown Boston where such a facility could be built.

The Mayor's recommendations were based on an evaluation of the existing McCormack building and its inadequacies as a federal court facility. The report

5. Site Analysis for a Federal Courthouse, Boston, Massachusetts, by The Office of Raymond L. Flynn, Mayor of Boston, October, 1988.

discusses the following factors in support of its conclusion that a new courthouse should be built:

1. The existing building does not meet basic security standards and GSA's proposed multi-million dollar renovation program cannot make it secure.
2. Given the extensive nature of the renovations proposed by GSA, it would not be possible for the courts to remain fully operational throughout the renovation period, which is likely to continue for five years or more.
3. Even after the multi-million dollar renovation, court facilities provided in the McCormack building would remain inappropriate and inadequate for several reasons. For example, judges' chambers and courtrooms would be spread out over numerous floors; and courtrooms and chambers will continue to be of varying size and still will not meet the standards of the U.S. Courts Design Guide. Also, the building will not have sufficient capacity to meet the need for expanded facilities caused by future requirements for creation of new judicial positions.
4. Economically, the GSA study shows that the 30 year present value of renovating the McCormack building would be 32 percent more costly than construction of a new court facility.

Based on these factors, the study recommends planning and construction of a new federal courthouse with a total net area of 427,500 square feet and provisions for 24 courtrooms. The following table summarizes the Mayor's proposed facility program for this new building.

Table 3
SUMMARY
FACILITY PROGRAM PREPARED BY THE OFFICE OF
THE MAYOR OF BOSTON (1988)

COURT/AGENCY/USE GROUP:	NET PROGRAMMED AREA:
Court of Appeals	75,000
District Court	240,000
Court Reporters	*
Grand Jury	7,500
U.S. Attorney	50,000
Strike Force	10,000
U.S. Marshal	20,000
Probation	12,000
Pre-Trial Services	5,000
Bureau of Prisons	1,000
Press Facilities	1,000
Food Services	6,000
SUBTOTAL	427,500
Other Agencies	*
TOTAL PROGRAMMED AREA	427,500

*NOTE: Not addressed as a separate element.

The Mayor's Office initially identified twelve sites as likely locations for a new courthouse. Of the twelve sites, four were evaluated in detail and were subsequently ranked in order of preference as follows:

1. John F. Kennedy Federal Building Annex in the Government Center, owned by the Federal Government.
2. Vacant site on New Chardon Street at Merrimack Street, owned by the Commonwealth of Massachusetts.
3. Commonwealth Center on Washington Street in Boston's cultural district, one block from the Boston Common, privately owned.
4. Site on Atlantic Avenue between Northern Avenue and Congress Streets, owned by Boston Edison.

The study identifies the site of the JFK Annex as the preferable location to be redeveloped for construction of the new courthouse.

SYNOPSIS OF THE HO+K REPORT

The insuperable difficulties of accommodating the need for fully functional federal courts in Boston within the structural limitations of the McCormack building have become strikingly evident in the most recent GSA study of the renovation alternative. In 1988, GSA retained a planning team comprised of The Stone & Webster Engineering Corporation and Hellmuth, Obata & Kassabaum, Architects (hereinafter: HO+K) to conduct a five year growth projection space planning study. The goal of this study has been to project and plan for accommodation of the facilities needs of the Federal Courts in Boston within the confines of the existing J.W. McCormack Post Office and Courthouse, with an assumed planning/occupancy horizon of 1993. The difficulties imposed by the structural characteristics of the McCormack building have apparently led to delays in the scheduled completion of this study. As of the date of this writing, the study has not been completed; SMC has, however, had the opportunity to review a portion of HO+K's final draft report materials dated December 6, 1988. The following comments are based on that review.

SMC has derived Table 4, found on the following page, to summarize the programmed projected area requirements in HO+K's draft study. These programmed area requirements, which maintain and incorporate many of the inadequate facilities currently used by the courts, amount to slightly less than 415,000 square feet. HO+K states that a "fit factor" of ten percent should be added to the program requirements to provide a realistic estimate of the total net area needed to adequately and suitably provide for those requirements. Incorporating certain reasonable adjustments to the application of this fit factor, the planners have projected a total need of about 441,000 net assignable square feet. By HO+K's calculation, however, the space available in the building amounts to only about 424,000 net assignable square feet. Indeed, the planners concede that in their proposed design "space assigned to a floor exceeds the space available on that floor" in at least six floors designed to contain courtrooms and chambers. To resolve this shortfall of as much as 17,000 square feet, the draft study proposes to incorporate reductions in the provision of required internal (private or restricted) circulation areas on several floors; this solution does not adequately address one of the greatest problems faced by the courts in their

current facilities, i.e., the lack of private circulation areas. In fact, the planners admit that "[i]n all cases, the existing floorplate precludes discrete judiciary and prisoner circulation." In addition, the HO+K report attempts to solve the problem of inadequate space on some floors by developing layouts that do not provide basic required spaces. For example, in order to accommodate two judges' chambers on the twentieth floor, the planners have eliminated all normal restroom facilities from the floor and still have designed a floor plan calling for the use of 684 more square feet than is available.

Table 4
SUMMARY
FACILITY PROGRAM PREPARED BY HO+K
(Derived from draft materials dated December 6, 1988)

COURT/AGENCY/USE GROUP:	NET PROGRAMMED AREA:
Court of Appeals	66,129
District Court	144,449
Court Reporters	7,475
Grand Jury	6,630
U.S. Attorney	48,213
Strike Force	11,590
U.S. Marshal	12,942
Probation	11,167
Pre-Trial Services	2,717
Bureau of Prisons	813
Press Facilities	460
Food Services	10,180
SUBTOTAL	322,765
Other Agencies	91,869
TOTAL PROGRAMMED AREA	414,634

HO+K's draft study also includes a facility stacking plan, which presents schematic layouts to show how the program's area and adjacency requirements can be accommodated within the constraints of the existing building. In many instances, however, this accommodation is accomplished with very limited success, and it is apparent that the physical form and spatial limitations of the existing building have placed fundamental constraints on the study's proposals. The following points are cited as examples of those elements for which the proposals fail to overcome the constraints of the existing building:

- the layouts have had to incorporate the fact that the existing floorplates of the McCormack building preclude any provision for the security and efficiency of separate public, prisoner and private judicial, juror and court personnel circulation patterns;
- the plans cannot accommodate many of the spatial and functional adjacency requirements which the study identifies as being essential to the courts' operations -- for example, many judges' chambers are

still located on floors far away from their courtrooms;

- many of the spaces provided on the layouts are too small, inappropriate to the proposed use, awkwardly shaped, or otherwise inadequate (e.g., all of the courtrooms to be provided on the fifth floor are interrupted by structural columns, which will disrupt sightlines and interfere with proper furniture layouts);
- several of the floors do not provide sufficient area to accommodate assigned program requirements adequately; and
- security problems have not been adequately solved.

Thus, it must be concluded that implementation of the proposals presented in the most recent and ambitious renovation study would serve to do little more than perpetuate the greatest portion of the facilities problems and deficiencies currently experienced by the courts. The current renovation planning serves only to emphasize the limitations of the McCormack building as a courthouse. If anything, these efforts underscore that even in the four years since the Tappe Report's attempt to "make the best out of a bad situation," the increase in the courts' needs have made that bad situation even worse. It is apparent that no renovation plan, no matter how sophisticated, can make a fully adequate federal courthouse for Boston's current needs out of the McCormack building. Perhaps most importantly, there is not even the glimmer of hope that renovation can meet the future needs of the courts.

GROWTH IN CASELOADS AND JUDICIAL POSITIONS

Whether planning for the renovation of the existing building or planning for a new building, the growth of the courts must be considered. This growth is evidenced by the increase in court filings and the increase in judicial positions. Figure 1, on the following page, traces historic filings for both the First Circuit Court of Appeals and the District Court for the District of Massachusetts. Court of Appeals filings increased 133 percent over the 37 year period from 1933 through 1970; over the 18 year period from 1970 to 1988 the increase has been an even more dramatic 347 percent. The increase in the past 18 years has been more than 2.6 times that of the previous 37 years. Overall the rate of increase has been more than five times the previous rate of increase. Consequently, not only is the number of filings increasing, but they continue to increase at a much faster rate.

District Court filings have been somewhat more erratic on a year-to-year basis but, overall, they also show a substantial increase. From 1933 to 1970 the increase was 55 percent; from 1970 to 1988 the increase was 85 percent. However, the peaks in 1975 and 1985 showed an increase of nearly 200 percent.

Figure 2, on the following page, graphically presents historic data regarding the number of District Court and Circuit Court of Appeals judges, both active and senior, requiring either resident or non-resident chambers in Boston. The number of District Court judges requiring chambers in Boston increased from one prior to 1922 to a total of fifteen in 1988. This number has grown exponentially in recent years; while it grew from one prior to 1922 to six in 1966, an increase of five judges in 44 years, between 1966 and 1988, the number of District Court judges grew from six to fifteen, an increase of nine judges in 22 years. Thus, the rate of increase in the last 22 years is 2.8 times that of the previous 44 years.

The Court of Appeals has also experienced exponential growth recently. The number of Circuit Court judges requiring provision of chambers in Boston remained at three until 1954. From 1954 to 1988 this number more than doubled to seven, representing a significant increase in demands on the Boston court facilities.

Finally, as respects full-time Magistrates in Massachusetts (which are not shown on Figure 2), two were appointed in 1971 and the number increased to five in 1986, four of whom sit in Boston, each requires both chambers and a courtroom.

To a large degree, the increases in the number of judicial positions have occurred due to the increases in filings handled by the courts. The increased number of judicial positions requires provision of the appropriate numbers and types of chambers suites, courtrooms, jury deliberation rooms, and all of the other ancillary facilities typically used by judges and their support personnel. In order to plan properly for accommodation of the future facilities needs of the Courts and court-related support agencies, an indepth analysis of filings, judicial positions and other historical data should be done to develop adequate projections of those future needs. Such a study is important so that adequate planning can be accomplished to accommodate anticipated future growth in the requirements of the courts as well as their Clerks' Offices and other court-related justice agencies. In this connection we understand that the Administrative Office of the U.S. Courts and the Space and Facilities Committee of the U.S. Judicial Conference has selected the District of Massachusetts as one of the first eight judicial districts in which to test draft guidelines for the long range facilities planning process.

Figure 1
1st Circuit Court of Appeals & District of Massachusetts
Combined Court Filings

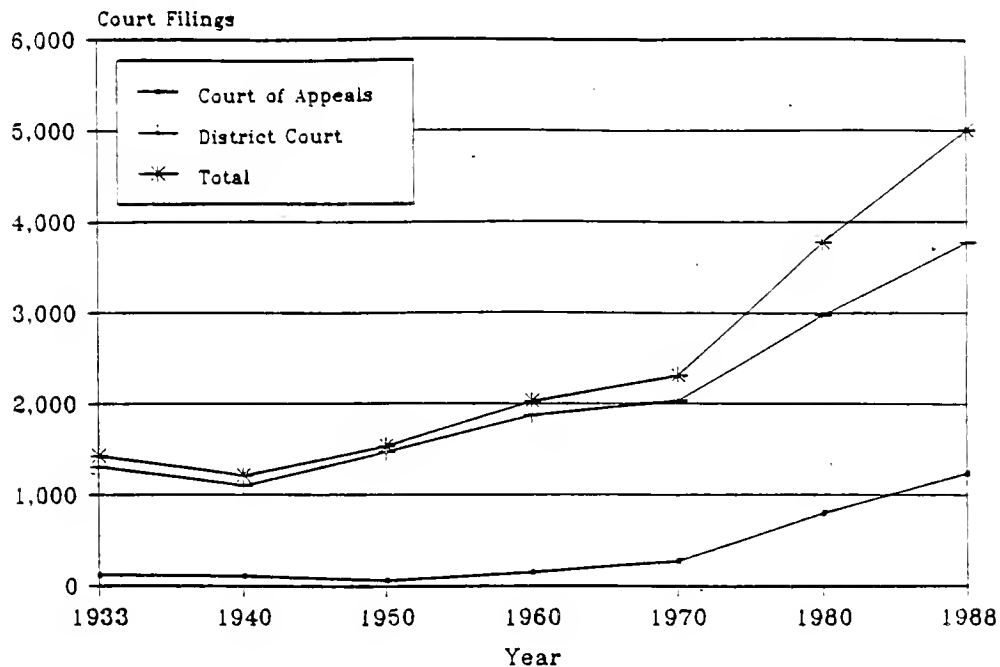
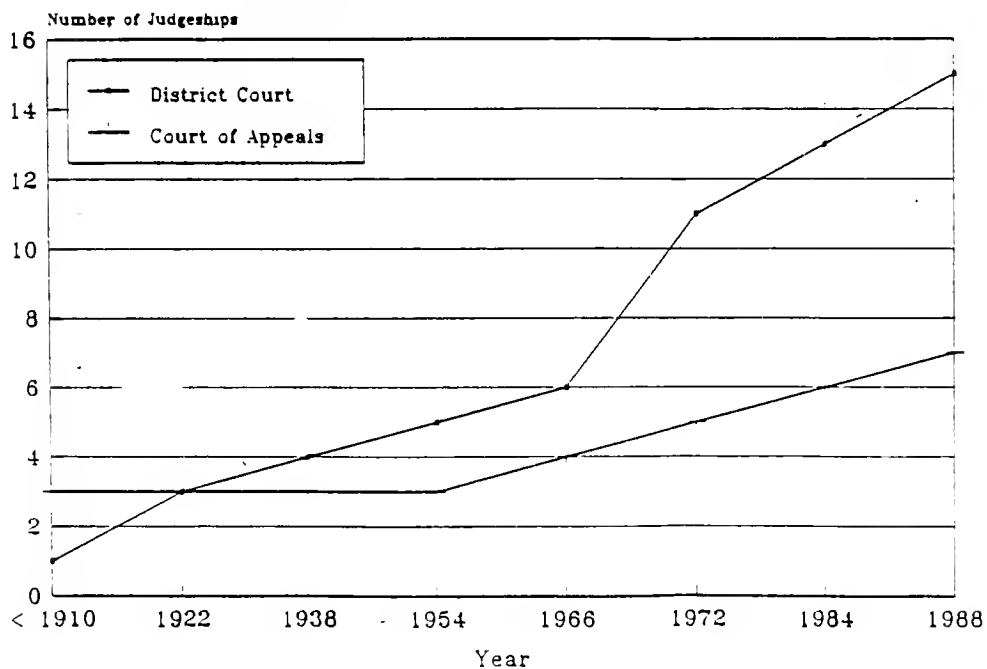


Figure 2
Active & Senior Judges Requiring Full or Non-Resident
Chambers in Boston



REVIEW OF MAJOR BUILDING SYSTEMS

This section discusses the problems and deficiencies that have been noted concerning the attributes of major systems of the McCormack building. The attributes that have been investigated include:

- Physical Security,
- Acoustic Performance,
- Lack of Required Facilities,
- Spatial Suitability,
- Efficiency & Convenience,
- Life Safety,
- Image & Appearance,
- Building Maintenance,
- Handicapped Accessibility,
- Lighting Quality,
- Distribution of Power, Data & Communications, and
- Heating, Ventilation & Air Conditioning.

Table 5, on the following page, summarizes SMC's evaluation of these attributes of the building. This evaluation looked at the two major occupancies found in the building, office uses and court uses, and rated as either adequate or inadequate the functionality of the building for each of those uses. The table also presents SMC's evaluation as to whether or not the noted deficiencies can be corrected or improved within the constraints of the existing building and, if they can, where the costs of such correction or improvement would be expected to range.

With regard to office uses of the McCormack structure, five building system categories are adequate: (1) physical security, (2) acoustic performance, (3) lack of required facilities, (4) efficiency and convenience, and (5) image and appearance. There are seven categories that were inadequate, but the inadequacies noted in six of these categories can be improved within the envelope of the existing structure: (1) spatial suitability, (2) building maintenance, (3) handicapped accessibility, (4) lighting quality, (5) power, data and communications, and (6) heating, ventilation and air conditioning. For office uses, only the life safety category cannot be improved within the existing facility.

As respects the court uses, all twelve building system categories are inadequate and only seven of these categories can be improved: (1) image and appearance, (2) building maintenance, (3) lighting quality, (4) lack of required facilities, (5) handicapped accessibility, (6) power, data and communications, and (7) heating, ventilation and air conditioning. There are five categories that, due to the physical constraints of the building, cannot be improved within the existing facility: (1) physical security, (2) acoustic performance, (3) spatial suitability, (4) efficiency and convenience, and (5) life safety.

Thus, the summary table on the next page clearly shows that the building is better suited for remodeling to adequately accommodate office building uses rather than for continued use as a courts building.

BUILDING SYSTEM	OFFICE USES						COURTS USES					
	ADEQUATE	Can be improved at moderate cost	Can be improved at high cost	Cannot be improved with existing facility	ADEQUATE	Can be improved at moderate cost	Can be improved at high cost	Cannot be improved with existing facility	ADEQUATE	Can be improved at moderate cost	Can be improved at high cost	Cannot be improved with existing facility
Physical Security	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Acoustic Performance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lack of Required Facilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spatial Suitability	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Efficiency & Convenience	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Life Safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Image & Appearance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Building Maintenance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handicapped Accessibility	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lighting Quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Power, Data & Communications	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heating, Ventilation & Air Conditioning	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 5
REVIEW OF MAJOR BUILDING SYSTEMS

Figure 3
 DIAGRAMMATIC LAYOUT OF IDEALIZED CONDITIONS
 TYPICAL PAIR OF COURTROOMS, CHAMBERS & ANCILLARY FACILITIES

- 1 DISTRICT COURT JURY COURTROOM
- 2 VESTIBULE/COAT CLOSET
- 3 WITNESS WAITING ROOM
- 4 ATTORNEY CONSULTATION ROOM
- 5 PRISONER HOLDING CELL
- 6 PRISONER SALLYPORT/CIRCULATION AREA
- 7 PRISONER ELEVATOR
- 8 COURTROOM CLERK'S OFFICE
- 9 COURTROOM CLERK'S STORAGE AREA
- 10 COURT REPORTERS' GENERAL OFFICE
- 11 COURT REPORTER'S PRIVATE OFFICE
- 12 COURT REPORTER'S STORAGE AREA
- 13 JURY DELIBERATION SUITE
- 14 JUDGE'S CHAMBERS SUITE
- 15 PRIVATE (STAFF) ELEVATOR
- 16 PRIVATE (STAFF) CIRCULATION AREA
- 17 PUBLIC ELEVATOR
- 18 PUBLIC CIRCULATION AREA
- 19 JUDGE'S ROBBING/CONFERENCE ROOM

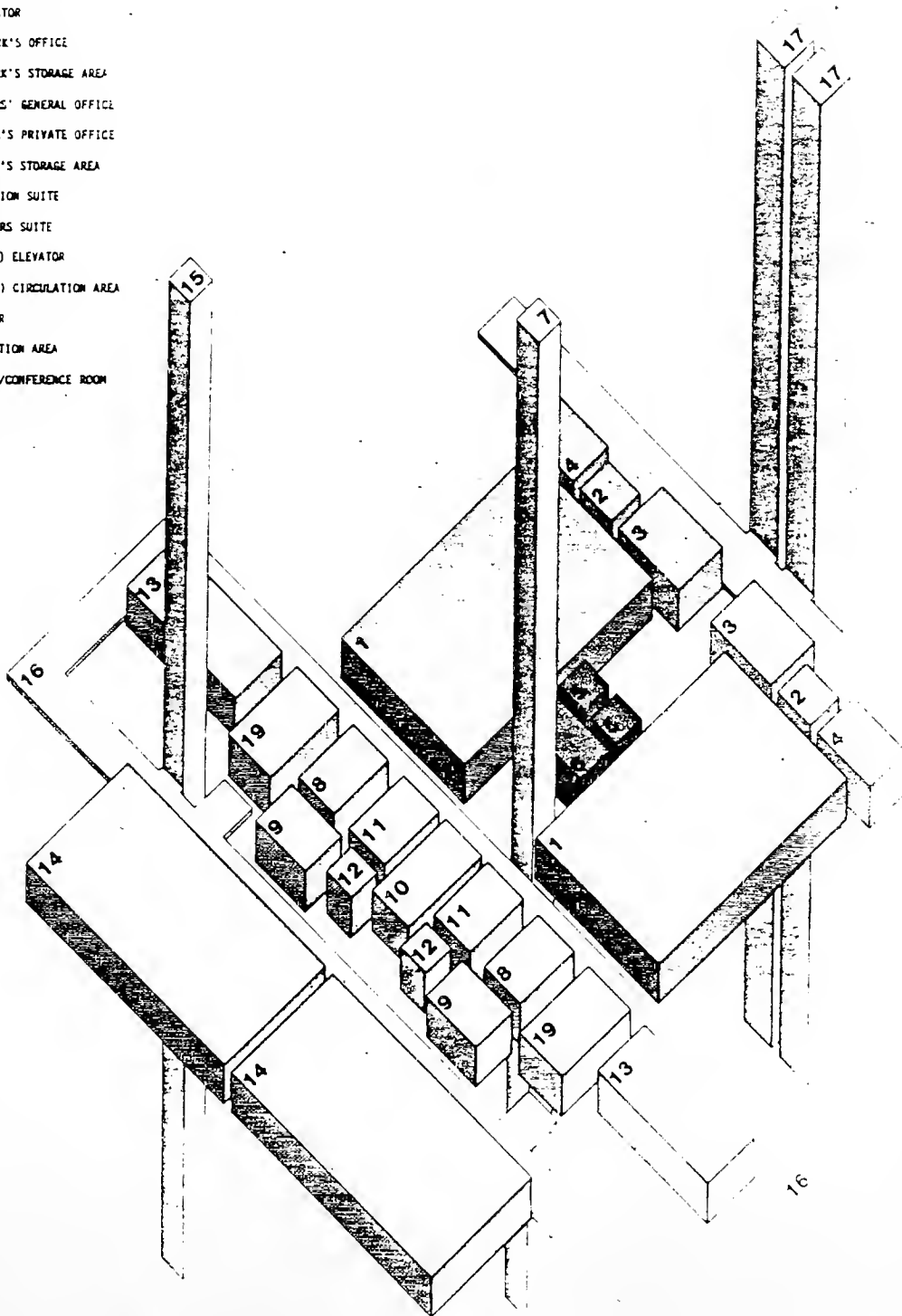
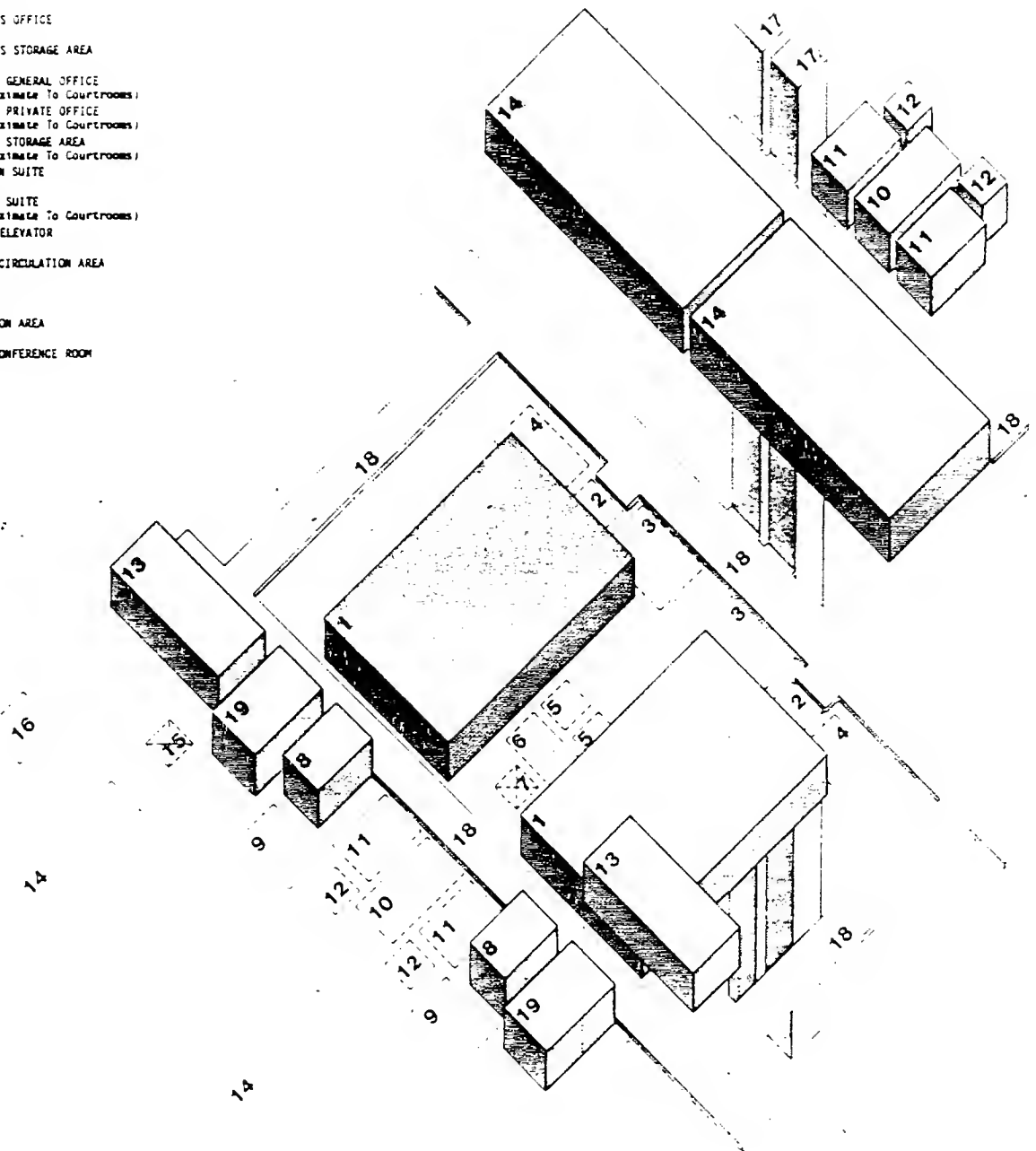


Figure 4
 DIAGRAMMATIC LAYOUT OF EXISTING CONDITIONS
 TYPICAL PAIR OF COURTROOMS, CHAMBERS & ANCILLARY FACILITIES

- 1 DISTRICT COURT JURY COURTROOM
- 2 VESTIBULE/COAT CLOSET
(Not Provided)
- 3 WITNESS WAITING ROOM
(Not Provided)
- 4 ATTORNEY CONSULTATION ROOM
(Not Provided)
- 5 PRISONER HOLDING CELL
(Not Provided)
- 6 PRISONER SALLYPORT/CIRCULATION AREA
(Not Provided)
- 7 PRISONER ELEVATOR
(Not Provided)
- 8 COURTROOM CLERK'S OFFICE
- 9 COURTROOM CLERK'S STORAGE AREA
(Not Provided)
- 10 COURT REPORTERS' GENERAL OFFICE
(Not Located Proximate To Courtrooms)
- 11 COURT REPORTER'S PRIVATE OFFICE
(Not Located Proximate To Courtrooms)
- 12 COURT REPORTER'S STORAGE AREA
(Not Located Proximate To Courtrooms)
- 13 JURY DELIBERATION SUITE
- 14 JUDGE'S CHAMBERS SUITE
(Not Located Proximate To Courtrooms)
- 15 PRIVATE (STAFF) ELEVATOR
(Not Provided)
- 16 PRIVATE (STAFF) CIRCULATION AREA
(Not Provided)
- 17 PUBLIC ELEVATOR
- 18 PUBLIC CIRCULATION AREA
- 19 JUDGE'S ROBBING/CONFERENCE ROOM



PHYSICAL SECURITY

The J.W. McCormack Post Office & Courthouse was constructed at a time when creation of a relatively high degree of building security was not seen to be as important it is today, and when the unique security requirements of the judiciary had not yet been recognized. In the last few years, a number of efforts have been made to secure the building: installation of electronic screening devices at the public entries; provision for video and intercom screening of visitors to judges' chambers in concert with use of remotely-controlled electric strike locks; provision of duress alarm buttons in critical court-occupied spaces; and installation of electronically-coded locking systems in some areas. There are, however, numerous security related problems and deficiencies that cannot be surmounted due to the physical constraints of the existing building. These problems can significantly compromise the operations of the Courts and other users, such as the U.S. Attorney and the New England Organized Crime Strike Force, for whom maintenance of a relatively secure working environment is critical.

The most serious of these security problems are the result of the building's basic circulation system. This system was designed to provide only one means of circulation within the building, consisting of four banks of public elevators and, on each floor, a double-loaded public corridor. This design requires that in-custody defendants, witnesses, judges, jurors all use the same corridors and elevators; this situation presents not only the danger of physical violence or intimidation, but also the threat of the creation of mistrials through such casual contact. Indeed, the lack of separate systems of circulation is perhaps the McCormack building's greatest single failing as a court facility.

Modern courthouse design standards⁶ call for the creation of at least three separate horizontal and vertical circulation patterns:

1. Public: used by attorneys and their out-of-custody clients, witnesses, news media representatives, and other spectators.
2. Restricted: used by judges, judicial staff, other staff, jurors, and authorized visitors (properly screened and/or escorted).
3. Secure: used by in-custody defendants, security officers, and certain types of protected or in-custody witnesses.

Provision of such separation in the existing building is not possible, due to the proportions of most of the floor plates and to the locations of elevator shafts.

6. See, for example, Space Management and the Courts: Design Handbook, F. Michael Wong, Ph.D., L.E.A.A., U.S. Department of Justice, 1973; The American Courthouse: Planning and Design for the Judicial Process, A. Benjamin Handler, Project Director, American Bar Association, 1973; and United States Courts Design Guide, General Services Administration, Public Buildings Service, 1979.

Other security-related problems and deficiencies of the existing building include the following:

- lack of a secure vehicular sallyport to accommodate the transfer of prisoners to and from the building;
- lack of prisoner holding areas adjacent to courtrooms;
- lack of a central facility for video surveillance and monitoring of alarm systems by the U.S. Marshal;
- inappropriate mixtures of uses and functions;
- lack of a coordinated keying/access-control system; and
- inadequate control of access to and within the building outside of regular business hours.

Although many of these other problems can be rectified within the existing building, the costs of implementing such corrections will be relatively high (and perhaps unacceptably so) and will necessarily result in ad hoc solutions that are, at best, marginally satisfactory. It must be concluded that creation and maintenance of an acceptably secure courts environment is not possible within the constraints of the McCormack building.

Figure 3, found on the following page, is an idealized diagrammatic representation of the spaces and circulation patterns required for a typical pair of District Court courtrooms, chambers and other related facilities. This idealized arrangement provides the three required separate circulation patterns, and also provides an opportunity to further define the private circulation area to create a higher degree of restriction on access to the chambers suites. All of the spaces required by the U.S. Courts Design Guide are provided, and are placed with proper spatial and functional relationships.

Contrast this, then, with Figure 4, which diagrammatically represents the existing provision of functional spaces and circulation areas for a "typical" pair of courtrooms in the McCormack building. On this diagram, it can be seen that only the public circulation system is provided and that the required private and secure circulation systems (vertical and horizontal) are both absent, which is one of the building's great failures. Also, it is apparent that a number of required spaces (represented with broken lines) are either missing or are located without recognition of required functional and spatial relationships. The missing spaces include courtroom soundlock entries, witness waiting rooms, attorney consultation rooms, secure prisoner holding facilities, and court clerk storage areas. The spaces that are improperly located include the chambers suites, some deliberation suites, and the court reporters' offices and related spaces. From the comparison of these two diagrams, it is clear that the provisions found in the McCormack building are highly inadequate.

ACOUSTIC PERFORMANCE

While the McCormack building's design may have adequately addressed the acoustic requirements of its originally intended office users, the needs of the courts were not sufficiently taken into account. The acoustical requirements for court uses are significantly more complex and critical than those for most sorts of office uses. Typically, office uses require only a nominal degree of acoustic separation between spaces and the control of noise generation within a space.

By contrast, the acoustic criteria for each of the diverse spaces and functions of the courts typically entail at least one of the following requirements:

- provision of absolute acoustic privacy between spaces;
- creation of acoustically-private zones within an open space;
- control of noise generated within a space;
- control of sound transmitted from other spaces and noise generated by building services;
- creation of a good unaided listening environment;
- provision of an archival-quality audio recording environment.

The primary acoustic problems currently experienced by the courts in the McCormack building have to do with inadequate acoustical separation between spaces, lack of noise control and transmission, and provision of poor listening environments. While the problem of controlling noise generation and transmission can be at least partially ameliorated through the application of acoustically-rated finish materials and other ad hoc strategies, the other problems occur due to the design and structural characteristics of the existing building and, it is probable, cannot be corrected within those constraints. On the other hand, if a new courts facility were to be constructed it could, of course, be designed to satisfy the special acoustic requirements of the judiciary.

LACK OF REQUIRED FACILITIES

As is indicated in Figure 4, presented on the preceding page, the courts in the McCormack building are currently lacking many of the sorts of spaces required by the U.S. Courts Design Guide, as well as a number of other facilities which while not specifically mentioned in the Design Guide are required to ensure the efficient operation of the courts and the administration of justice. The following are examples of the more critical sorts of facilities that are not currently provided: witness waiting rooms; attorney consultation rooms; courtroom soundlock vestibules and coat closets; jury room soundlock vestibules and other support areas; and prisoner holding and secure attorney-client conference spaces adjacent to courtrooms.

The shapes and proportions of the building's floor plates and the spacing of its structural columns were not planned to incorporate flexibility in space uses and assignment. Therefore, it is not possible to accommodate provision of these missing facilities within the existing building.

SPATIAL SUITABILITY

Physical Constraints on the Development of Adequate Courts Facilities.

Most of the court facilities currently provided in the McCormack building have been the result of attempts to remodel office-type space to suit the courts' needs. These attempts have had varying degrees of success but, for the most part, it is relatively easy for even a casual observer to distinguish which spaces were originally designed to accommodate the courts and which facilities are the product of latter day remodelings. The reason that this differentiation is so evident lies in the constraints imposed on the remodelers by the structure of the building itself. For example, the structural column bays throughout most

of the building will not allow development of a column-free courtroom: a standard, jury-trial courtroom must be at least 35 feet wide, but the maximum column spacing in most of the building is only 17 feet (center to center). Also, on most of the floors, the structural floor-to-floor height is insufficient to provide the sort of high-bay space required by a courtroom or any other large space.

Another influence constraining the success of remodeling projects has been the shape and proportions of the floor plans on floors five through sixteen (i.e., approximately 55 percent of the building's floor area), which are U-shaped in plan, with wings that are somewhat less than 50 feet deep. For a courts facility, a U-shaped plan is relatively inefficient, with a more compact, rectangular plan shape being preferred; also, a minimum depth of 80 feet is required, with a depth of at least 100 feet being far preferable. Thus, it must be concluded that most of the building is simply not physically suited to conversion for use as court facilities.

EFFICIENCY & CONVENIENCE

Over the last fifty years or so, changes of space use within the McCormack building have occurred without any apparent long-term master plan. Instead, changes have been made on a largely ad hoc basis, satisfying the immediate needs of high-priority users by removing lower-priority users and remodeling the vacated spaces. As in agriculture, this slash-and-burn strategy has borne a variety of ill results, the most destructive of which has been the dispersion of functionally-related spaces in relatively remote areas of the building.

This dispersion is particularly evident as regards the wide variety of facilities used by the courts. As is illustrated in Table 1 (found earlier in this report), judicial chambers are dispersed over nine floors of the building, courtrooms are spread over six floors and jury deliberation rooms are found on five floors. The scattering of related facilities throughout the building has presented the courts with a situation in which: it is difficult to achieve a sense of efficiency; the collegial atmosphere that should be enjoyed by the judiciary is seriously compromised; and which requires that judges and their staff members spend an inordinate amount of time simply moving around the building to complete the variety of tasks inherent in their jobs.

The size and configuration of the floor plates and the locations of vertical circulation cores has required some of the larger users of the building, including the U.S. Attorney and the Clerk of the District Court, to disperse their operations over more than one floor of the building. The lack of sufficiently large contiguous floor areas has negatively affected such users by requiring them to create divisions that are not optimally functional but are instead the artifice of available space.

LIFE SAFETY

Because the McCormack building is more than fifty years old, its design largely fails to measure up to current life safety standards for high-rise buildings. Due to structural constraints and site limitations, many of the critical life safety problems observed in the building cannot be mitigated to a level

acceptable for a judicial facility; therefore, serious consideration should be given to moving the courts to a building designed to incorporate modern code requirements.

Examples of life safety problems in the building are numerous, but the most important of them (and perhaps the most important failure of the building overall) is the total lack of adequate means of safe egress in the event of a fire. Although long-standing building standards require that occupants of every area and every level of any building must be provided with a minimum of two enclosed, smoke-proof, uninterrupted means of protected egress, floors 17 through 22 are provided with only one central staircase. Floors 1 through 16 are provided with three stairways, but it is doubtful that these stairs could be rated as sufficiently protected means of egress: the central staircase is interrupted by an elevator lobby at the second floor, and does not, therefore, satisfy the requirement for uninterrupted egress; the other two stairways incorporate elevator lobbies at each floor level and do not, therefore, satisfy the requirements for smoke-proof enclosure -- in fact, in the event of a fire on one of the lower floors it is probable that these two stairwells will provide relatively efficient means of spreading smoke and toxic fumes to the upper floors. Also, modern life safety and building codes require that at least 50 percent of a building's exits must lead directly to the exterior of the building: the stairways in the McCormack building do not satisfy this requirement.

Among the other life safety problems that can be cited in this facility are inadequate exit signage, lack of an intercom system to broadcast emergency announcements and evacuation instructions, and the need to repair and maintain the fire alarm system which, in some areas of the building, was not operational at the time of SMC's November, 1988, site visit. The need to correct these problems is not unique to the continued use of the McCormack building by the U.S. Courts: even if the building is used exclusively for office occupancies, it will be necessary to provide an environment responsive to modern life safety requirements.

It must be remembered, however, that court facilities bear a special responsibility for the safety of their users, many of whom (e.g., defendants, subpoenaed witnesses and jurors) are required by force of law and often against personal wishes to spend time in the courthouse. It is unconscionable to require that citizens endanger life and limb to serve the cause of justice.

IMAGE AND APPEARANCE

Although the courts may impose formal sanctions in both the criminal and civil arenas of their activities, much of the power of the judiciary is a direct result of the respect that is engendered in the people subject to its judgments. When that respect is compromised, the ability of the courts to administer justice is compromised as well.

Symbolic elements have traditionally been manipulated to support the high degree of respect the courts must be accorded if they are to be effective. The symbols used have varied greatly in type, and have included: the use of monumental architectural spaces, forms and motifs; provision of elevated platforms for the judicial bench; the wearing of formal, black robes; and numerous other elements, both subtle and not.

Although the exterior appearance and style of the McCormack building is, arguably, appropriate to its role as a courts facility, it appears that the building is identified first as the Post Office and only secondarily as the federal courthouse. This problem in identification is underscored both by the building's formal name (i.e., the J.W. McCormack Post Office & Courthouse) and by the adjacent public open space known as Post Office Square. Thus, by depriving the courts of a unique identity in the cityscape, the judiciary is placed in a position that is apparently subordinate to that of the U.S. Postal Service. It is clear that this lack of identity damages the image of the U.S. Courts.

Once inside the building, the image of the courts is further compromised in a number of ways. For example, while the original courtrooms were designed with an adequate sense of dignity and monumentality, the courtrooms that have been added within the existing structure are seriously lacking in terms of size, proportions, spatial relationships, quality finish materials, and architectural detailing -- i.e., these spaces lack many of the symbolic attributes requisite to courtrooms.

Another element that weakens the image of the judiciary is the scattering of the courts' spaces throughout the courthouse. Although the primary effect of this dispersion is a reduction in the internal efficiency with which the courts may operate, their image is also affected due to the difficulty of public orientation to the courts' spaces and functions.

MAINTENANCE OF THE FACILITY

The standard with which the interior of the building is maintained also contributes to the perceived dignity of the court, and reflects on the government's administrative attitude towards its third branch. Where spaces are inexpertly or inattentively maintained, finishes are of inferior quality and inconsistent type, and "cheaper is better" is clearly announced in the details of the design, the image and effectiveness of the courts is undermined.

Even a cursory inspection of the McCormack building reveals many areas where maintenance is a problem. Many of these problems can be traced to the age of the building and the expense of matching old materials as part of remodeling and renovation projects. Although these problems are not insurmountable, they become unacceptable in a court environment because of their negative effect on the publicly-held image of the courts.

HANDICAPPED ACCESSIBILITY

All public service buildings, including governmental facilities, should present an image of accessibility to all segments of society. This image is especially important for court facilities: unfettered access to justice is a right, not a privilege. The original design of the McCormack building did not, however, include consideration of the needs of handicapped users of the facility. Accommodation of those needs, where such accommodation has been made, has been made through ad hoc arrangements that are at best nominal in nature..

The greatest impact of implementing barrier-free accessibility standards is generally realized in providing access to people with limited mobility, especially where multi-story structures are concerned. It should be recognized, however, that these are by no means the only people whose accessibility is affected. Barrier-free access must also be assured for people with nonambulatory disabilities such as sight and hearing disabilities, incoordination, reaching and manipulation disabilities, lack of stamina, difficulty interpreting and reacting to sensory information, and extremes of physical size.

It should be noted that provision of barrier-free access is required not only for public areas of a court facility, but also for private areas. For example, facilities provided for jurors and alternates (including the jury assembly facility, jury boxes in courtrooms, and jury deliberation suites) must be designed to allow the participation of physically handicapped jurors. It should also be noted that implementation of the spirit of equal employment opportunities policies will also require maintenance of barrier-free access in staff areas to assure that artificial barriers to employment are not erected in the work place.

LIGHTING QUALITY

Currently, the quality of artificial lighting in many areas of the McCormack building is unacceptably low, presenting problems in terms of noise generation, color rendition, inconsistent relamping, inadequate illumination and creation of glare on work surfaces and computer screens. While these problems are not unique to a courts tenancy, they are more obvious in the areas occupied by the courts because those areas exhibit a wider variety of critical lighting requirements than do those areas of the building devoted to office-type uses.

Lighting throughout the building should be improved and upgraded, not only to improve the quality of lighting but also to effect savings in energy costs. Such improvement and updating will be required regardless of whether or not the courts remain as tenants of the building, and can be accomplished at relatively low cost and without requiring that the facility be vacated.

POWER, DATA & COMMUNICATIONS

Since the opening of the McCormack building, there have been far reaching changes in the technologies employed in offices, court operations and facilities management. As with most other fifty-year-old structures, the McCormack building's ability to accommodate those changes is quite limited, but is not outside the realm of possibility.

It will be possible to increase the capacity of the building to accommodate cabling requirements for the distribution of power, data and communications services, as has been done on a piecemeal basis in some areas, but it is probable that a coordinated effort at doing so will be relatively costly. Nevertheless, this is a cost that will have to be borne no matter what future uses are to be accommodated in the structure.

It can, however, be expected that accommodating the cabling and distribution needs of the courts will be more complex than accommodating those for office uses: in addition to incorporating all of the requirements of office uses, the

courts will also require extensive cabling for electronic security systems as well as for transmission and control of video signals. In addition, the technology for the court system must be designed and implemented to connect the entire building in one system. If the building were updated for the technologies of office use, only each individual office space would need to be considered which would be a much simpler undertaking.

HEATING, VENTILATION & AIR CONDITIONING

The HVAC system for the existing building is inadequate by any measure: the equipment is old and noisy, the system is not energy efficient, and the comfort of building users is not maintained. Temperatures in some areas of the building reportedly range from 50 degrees in winter (requiring jurors in some courtrooms to wear full outdoor gear while attempting to intelligently and impartially hear and consider the facts in important cases) to 90 degrees in summer. Individual window-mounted air conditioners are the rule instead of the exception and, due to the creation of winter "hot spots" in the building, it is apparently not unusual to observe numerous open windows throughout the heating season.

Obviously, the problems posed by the HVAC system are not unique to the courts occupancy, and should be corrected whether the court continues to be a tenant or the building is converted to office uses exclusively.

REVIEW OF SPECIFIC SPACE TYPES

The previous section of this report addressed the problems associated with the major systems of the McCormack building. The following material discusses the attributes of the specific types of spaces used by the U.S. Courts in the existing McCormack building. The space types covered here include courtrooms, jury deliberation and assembly facilities, and grand jury facilities; some general comments are also included for various other sorts of spaces. The attributes used to evaluate the adequacy of each of these types of spaces included: physical security, acoustic performance, spatial suitability, efficiency and convenience, image and appearance, handicapped accessibility, and lighting quality.

COURTROOMS

Table 6.. on the following page, provides an overview of SMC's evaluation of the deficiencies of the courtrooms currently found in the McCormack building. Some of these deficiencies can be improved or corrected within the existing building, and will require only moderate expenditures. Most of the deficiencies, however, cannot be improved or corrected because they involve the basic physical constraints of the building.

In the area of physical security, the only element that can be significantly improved within the existing building is provision of a more adequate electronic system to alert the U.S. Marshals of emergency conditions in courtrooms and other sensitive areas, and to provide the Marshals with information that may be used to aid their evaluation of potential responses in each instance. The other security deficiencies noted in the table below occur because the building was not designed to accommodate the three separate circulation patterns required for a court facility; it is likely that even relatively unsuccessful attempts to correct this condition would involve unreasonably high expenditures.

Acoustic performance of the courtrooms could, in some instances, be somewhat improved through the provision of entry vestibules that would act as soundlocks acoustically separating the courtrooms from adjacent public lobby areas; due to configuration of the building, however, these soundlocks would encroach on the lobby areas and would probably be quite unsightly. The lack of required zones of acoustic privacy within some of the courtrooms cannot be corrected, because the courtroom arenas cannot be made wide enough to accommodate proper separation of the various groups of users in typical courtroom proceedings.

The issues of inefficiency and inconvenience, which arise due to the widespread dispersion of functionally related spaces throughout the building, could be somewhat ameliorated through implementation of a coordinated master plan of space uses, although it is expected that such implementation would require high costs and a high degree of disruption in the operations of the courts and other occupants of the building. Problems related to lighting quality and image and appearance could be improved or, perhaps, corrected through implementation of a similarly coordinated schedule of illumination systems, finishes and furnishings; this could be accomplished at relatively moderate cost and could be included in a program for the cyclical renovation and upgrading of facilities throughout the building.

The problems posed by the lack of spatial suitability and handicapped accessibility are largely insoluble. They arise due to the structural design and proportions of the McCormack building, which are factors that cannot be altered or adjusted. To a great extent, the conditions creating poor sightlines in some of the courtrooms are also the product of the building's basic configuration and, therefore, probably cannot be entirely corrected. The inadequacy of wire distribution capacity and flexibility to accommodate the changing technological requirements of modern courtrooms will also have to be addressed for other uses throughout the building.

Table 6
REVIEW OF SPECIFIC SPACE TYPES: COURTROOMS

PROBLEMS & DEFICIENCIES:	EXAMPLES:
PHYSICAL SECURITY: - Inadequate to, from and in all courtrooms.	- No prisoner holding facilities adjacent to courtrooms. - No separation of public, restricted and secure circulation patterns. - Only rudimentary provision for duress alarms.
ACOUSTIC PERFORMANCE: - Transmittal of noise from public lobbies. - Sidebar conferences and private conversations at litigants' tables can be overheard by the jury.	- None of the courtrooms is provided with an entry vestibule/soundlock providing acoustic separation from the public lobbies. Of the three courtrooms currently under construction on the second floor, only one will have a soundlock. - In several courtrooms, including Courtroom 12, the jury box is too close to the litigants' tables and the bench.
EFFICIENCY & CONVENIENCE: - Functional groupings of ancillary spaces not maintained.	- Almost all courtrooms are on different floors from the chambers of the judges using them.
SPATIAL SUITABILITY: - Inadequate floor area. - Ceilings too low. - Inappropriate shape/proportions. - Jury boxes protrude too far into judicial arena.	- All courtrooms are smaller than the size required by the U.S. Courts Design Guide. - Magistrates' Courtrooms 8, 9 and 10; District Courtrooms 7 and 10; Judge Garrity's courtroom and Judge Harrington's courtroom. - Magistrates' Courtrooms 8, 9 and 10 too long and narrow; District Courtrooms 3, 7 and 13 irregular in shape. - District Courtrooms 12 and 13.
IMAGE & APPEARANCE: - Furnishings worn and inappropriate. - Inappropriate use of finish materials.	- District Courtrooms 11, 12 and 13; Magistrates' Courtrooms 8, 9 and 10. - Magistrates' Courtrooms 8, 9 and 10 have dropped acoustical ceilings more appropriate to an office setting.
HANDICAPPED ACCESSIBILITY: - Unaided wheelchair access to witness box, jury box, and judge's and clerk's stations not provided. - No provision for hearing-impaired jurors and spectators.	- In all courtrooms it has been assumed that wheelchair access would be provided through the assistance of a court attendant; this is generally unacceptable. - In all courtrooms, at least one seat in the jury box and in the spectator seating area should be provided with a hearing device.
LIGHTING QUALITY: - Poor color rendition. - Long start-up time. - Noise generation.	- None of the courtrooms is provided with a lighting system that provides good color rendition, which can be critical to the use of some forms of physical evidence. - Some courtrooms use mercury vapor lamps, which have an energizing cycle that requires at least five minutes; this is inconvenient if the courtroom needs to be dimmed for the use of projected exhibits. - Lighting ballasts in most courtrooms produce noise that diminishes the quality of the acoustic environment and intrudes upon electronic recordings of proceedings.
OTHER: - Poor sightlines. - Lack of proper wire distribution.	- Courtroom 12: the narrow width of the courtroom dictates that one set of litigants must sit behind the other. - All courtrooms: some of the litigants are seated such that some jurors can see only the backs of their heads. - Some courtrooms: structural columns interrupt sightlines. - In most courtrooms, wires from microphones and other electrical devices are run over the floor surface, presenting an unsightly appearance and a tripping hazard.

JURY DELIBERATION ROOMS

As is indicated in Table 7, the chief problems affecting the adequacy of the existing jury deliberation rooms are posed by the lack of a separate system of private or restricted circulation areas and by the lack of soundlock entries to jury deliberation suites. These problems cannot be adequately addressed within the existing structure. Another key problem, that of inadequate assurance of the life safety of jurors, is also heavily constrained by the structural design of the building and the original layout of space uses.

The other problems related in the table also seriously detract from the comfort and perceived importance of jury duty. These conditions could be largely corrected if a well planned program of renovation and remodeling was implemented. Some corrections, such as the provision of coordinated and comfortable furnishings, could be accomplished at relatively low cost. Other aspects of the work would involve the reconfiguration of interior spaces and would, therefore, involve greater cost as well as a degree of operational disruption.

Table 7
REVIEW OF SPECIFIC SPACE TYPES: JURY DELIBERATION ROOMS

PROBLEMS & DEFICIENCIES:	EXAMPLES:
PHYSICAL SECURITY: <ul style="list-style-type: none"> Inadequate separation from public circulation areas. 	<ul style="list-style-type: none"> Some jury deliberation rooms are accessed directly from public corridors, raising the problem of improper contact between jurors and people using those corridors.
ACOUSTIC PERFORMANCE: <ul style="list-style-type: none"> Inadequate separation from public circulation areas. 	<ul style="list-style-type: none"> Some jury deliberation rooms are accessed directly from public corridors and are not provided with soundlock entries; people in those corridors can often clearly hear the deliberations of juries, compromising the integrity of the deliberation process. Soundlock entries could be used to effect acoustic separation between two such incompatible space types.
EFFICIENCY & CONVENIENCE: <ul style="list-style-type: none"> Lack of certain facilities commonly held to be essential to effective jury deliberations. 	<ul style="list-style-type: none"> No kitchenettes, no lounge areas for fatigued jurors, no soundlock entries, and inadequate acoustic separation between jurors' toilets and the deliberation rooms. Each of the jury rooms on the 13th floor can be reached only by a single stairway.
SPATIAL SUITABILITY: <ul style="list-style-type: none"> Inappropriate shape for jury deliberation rooms. 	<ul style="list-style-type: none"> New jury deliberation room on second floor is U-shaped; one of the jury rooms on the 13th floor is L-shaped.
IMAGE & APPEARANCE: <ul style="list-style-type: none"> Lack of comfort and dignity. 	<ul style="list-style-type: none"> The furnishings in many jury deliberation rooms appear to be merely left-overs, are of mixed type, and do not adequately provide for the seating comfort of jurors. Also, the jury rooms are uniformly drab. These conditions communicate an apparent attitude that jurors are not important to the justice system.
HANDICAPPED ACCESSIBILITY: <ul style="list-style-type: none"> Wheelchair access is generally inadequate. 	<ul style="list-style-type: none"> Many jury deliberation rooms are accessible only by stair; inadequate provision for handicapped access to jurors' toilets.
LIGHTING QUALITY: <ul style="list-style-type: none"> Poor color rendition. 	<ul style="list-style-type: none"> The fluorescent tubes used do not provide proper color rendition, which can affect the moods of individual jurors and can impair the ability of jurors to properly evaluate some types of physical evidence and exhibits.
OTHER: <ul style="list-style-type: none"> Unacceptable conditions related to life safety. 	<ul style="list-style-type: none"> Emergency egress from most jury rooms is totally inadequate in that there is only one means of egress down a stairway, which threatens the safety of jurors required to use those rooms.

JURY ASSEMBLY FACILITIES

The jury assembly facility, which is currently located on the third floor of the McCormack building, is seriously lacking in a number of respects, as is summarized in Table 8, below. Most of these problems are the result of the extreme and awkward proportions of the space now accommodating this use, which is about 120 feet long by 20 feet wide with a ceiling height of 9-10 feet. These problems could, therefore, be addressed by developing a different, more suitable area for this use in another area of the building.

A new jury assembly area could also be designed to make provision of the sorts of ancillary facilities that are currently missing or of poor quality (e.g., eating facilities, restrooms and good lighting), and could also be planned with better proximity to other functionally related areas in the building, such as the District Court Clerk's Office.

Table 8
REVIEW OF SPECIFIC SPACE TYPES: JURY ASSEMBLY FACILITY

PROBLEMS & DEFICIENCIES:	EXAMPLES:
ACOUSTIC PERFORMANCE: - Poor listening environment.	- The long, narrow shape of the jury assembly room makes it difficult to disseminate information to the jurors.
EFFICIENCY & CONVENIENCE: - Crowded, uncomfortable space. - Located too far from District Court Clerk's Offices.	- Due to the size of the space, which is too small for the number of people it must accommodate, the chairs furnished for waiting jurors are very close together. Also, there is no kitchenette, coat closet or restroom facilities directly serving the jury assembly area. - The jury assembly facility is located on the third floor but the Clerk's Offices are located on the sixth and seventh floors.
SPATIAL SUITABILITY: - Inappropriate shape for a jury assembly room. - Inadequate ceiling height.	- Long and narrow, with a length-to-width ratio of about six to one. - With the length of this room (about 120 feet), the dropped acoustical ceiling creates a tunnel-like appearance.
LIGHTING QUALITY: - Inadequate illumination.	- The low ceiling of the space makes it appear dark; improvements should be made to increase the efficacy of the artificial lighting system.

GRAND JURY FACILITIES

Table 9, found on the following page, lists the primary deficiencies of the grand jury facilities currently provided in the McCormack building. Typically, the grand jury rooms found in the existing building are long and narrow and have directly adjoining private toilet rooms and coat closets. They lack spaces for waiting witnesses and for the control of access to grand jury proceedings, as well as a number of other required ancillary facilities. Maintenance of the spaces that have been provided is, on the whole, markedly substandard. Together, these elements combine to provide an environment that can only serve to undermine the important role that must be played by the grand jury if our system of justice is to be effective.

Table 9
REVIEW OF SPECIFIC SPACE TYPES: GRAND JURY FACILITIES

PROBLEMS & DEFICIENCIES:	EXAMPLES:
PHYSICAL SECURITY: <ul style="list-style-type: none"> - Inadequate separation from public circulation areas. - Difficulty in securely moving sensitive witnesses to testify before grand juries. 	<ul style="list-style-type: none"> - Physical (architectural) control of access to grand jury rooms on the 13th floor is insufficient and uncoordinated. Grand jury rooms should be accessible only from private (restricted) circulation areas. - There is no private circulation system in the building; therefore, all witnesses must move through the public corridors, which could pose unacceptable risks for some sensitive witnesses.
SPATIAL SUITABILITY: <ul style="list-style-type: none"> - Inappropriately shaped hearing rooms. - Required facilities not provided. 	<ul style="list-style-type: none"> - Most of the grand jury hearing rooms are long, narrow and rectilinear in plan; a square-ish shape is more appropriate for these sorts of hearings. - Witness waiting rooms and reception/control areas are lacking, as are lounge facilities for grand jurors.
IMAGE & APPEARANCE: <ul style="list-style-type: none"> - Inappropriate furnishings. - Poorly maintained finishes. 	<ul style="list-style-type: none"> - Old, shabby furniture of low quality detracts from the importance of grand jury proceedings and does not adequately address the comfort of grand jurors. - Peeling paint and damaged ceiling in one 13th floor grand jury hearing room.
OTHER: <ul style="list-style-type: none"> - Unacceptable conditions related to life safety. 	<ul style="list-style-type: none"> - Emergency egress from the 13th floor grand jury rooms is totally inadequate in that there is only one means of egress, which unnecessarily threatens the safety of grand jurors required to use those rooms.

JUDGES' CHAMBERS

The judges' chambers suites found throughout the building vary greatly in size, style and provision of amenities. Due to the flexibility allowed each judge in the arrangement and decoration of his or her chambers spaces, there will always be variations in the organization and style of the individual chambers suites, but some attempt should be made to assure that each judge and the members of each judge's staff are provided with similar levels of facilities and amenities.

To a great extent, the differences among the various chambers suites fall along the line of those suites that have been renovated and those that have not. The renovated chambers suites provide more adequate and higher quality spaces, which properly reflect the dignity of the court and the position of the respective judges. Those chambers suites that have not been renovated tend to be smaller and do not present an impression of quality. In these latter suites, work areas for law clerks are generally too small and the judge is not provided with adequate work/research surfaces.

A major problem associated with the chambers suites lies in their locations, which occur in a scattered fashion throughout the building, generally with little or no functional proximity to the courtroom generally used by the respective judges. This dispersion of facilities makes it difficult for judges to travel to and from their courtrooms in an efficient and timely manner, as well as weakening the judiciary's attempts to establish and maintain a collegial atmosphere. It also presents problems in respect to security and communication.

CLERK'S OFFICES

Many of the facilities problems facing the Circuit Court Clerk's Office and the District Court Clerk's Office are similar in nature, including dispersion of functionally-related spaces and the building's inherent disabilities in the area of power, data and communications cabling accommodation. A large portion of the seventh floor was recently renovated to accommodate much of the District Court Clerk's Office, but the remainder of the office (including the computer room, the jury section and the records section) are located on the sixth floor. While the seventh floor renovation has improved the quality of the space used by this Clerk's Office, and have also improved the office's cabling capabilities, the size of the building's floor plates has forced the Office to create and accept functional divisions that may or may not represent an optimal operational model.

The Circuit Court Clerk's Office, which is located on the 16th floor, also must endure interruptions of the contiguity of its spaces, due to the limited size of the floor plate and the intrusion of a stair tower and the public corridor. This office could also use improvements to its facilities to distribute power, data and communications, to allow full adoption of developing court technologies.

It should be noted that both Clerks' Offices are located on upper floors of the building. While this is not a major difficulty as respects the Circuit Court Clerk's Office, the relatively high volume of public traffic to the District Court Clerk's Office demands that this office be located on a major public entry level, in order to limit the demands on the building's overtaxed elevator system.

BUILDING ENTRANCES

There are six entrances to the McCormack building, including the following:

- the basement level vehicular entry and exit doors, accessed from Congress Street;
- the public entries from Congress and Milk Streets;
- the Post Office's service entrance from Water Street; and
- the entry from Devonshire Street, which, for security reasons, is not used.

Because there are so many apparent entries to the building, public orientation can be somewhat confusing, and it can be difficult to locate the single entry that is handicapped accessible. The fact that there are three separate elevator banks also contributes to the confusion of members of the public.

CONCLUSION

SMC's evaluation of the suitability of the J.W. McCormack Post Office & Courthouse for continued use by the federal courts and related departments and agencies has included several elements: the review of previous planning studies; study of historical growth in caseloads and judicial positions; evaluation of the functional responsiveness of major building systems; and investigation of the problems and deficiencies of the various space types now used by Courts. SMC's analysis has shown that the existing physical configuration of the McCormack building will continue to impose serious obstacles to the efficient and secure operation of the Courts regardless of the extent of renovation and reorganization done to the building. As a result, the building cannot satisfy the functional and safety needs of the Courts.

In view of these and other considerations, SMC concludes that a new courthouse should be planned, designed and constructed in downtown Boston to house the long-term facility needs of the U.S. Circuit Court of Appeals and the District Court. Such a new structure, if properly planned, will provide the following elements essential to the efficient and safe operation of the court system:

1. Separation of public, private (or restricted), and secured prisoner circulation patterns for maximum security, safety and privacy.
2. Accommodation of facility needs that are not provided in the existing building such as jury deliberation rooms; witness waiting and attorney conference rooms; soundlock entries to courtrooms; staff lounges; and other space requirements, resulting from the changing needs of the court system.
3. Optimal functional and spatial relationships, circulation systems and accessibility control throughout the entire building.
4. Convenient circulation and access for judges and support staff between courtrooms, chambers, jury deliberation rooms, robing/conference rooms, and support offices.
5. Easy identification and accessibility for the public to the Clerks' Offices and other publicly accessible departments.
6. Adequate and flexible power, communications and data cabling distribution systems for use, as necessary, of multiple computer terminals and other office equipment at each workstation and office, and for use of specialized audio/video and security equipment throughout the building.
7. Appropriate environmental control to provide optimal comfort conditions for individual operational and personnel needs at various types of work stations, offices, courtrooms, etc.
8. Optimal acoustical treatment of building structure and finish surfaces for various levels of noise conditions, including special acoustical requirements by both audio/video recording and speech hearing by trial participants in courtrooms; soundproofing of jury deliberation rooms and grand jury rooms; and control of sound transmission between noisy and quiet adjacent spaces; etc.
9. Adequate provision to accommodate expansion of the court system over the long term.

It should be noted that planning and programming for new court facilities will be an extremely important measure in avoiding the creation of problems similar

to those inherent in the existing building. Adequate planning and programming can prevent design of a facility that is like the McCormack building inappropriate for current and future court needs.

Planning, programming, design and construction of a new Federal Courthouse for Boston should begin as soon as possible, and should proceed in concert with planning for renovation of the McCormack building to house a wide variety of office uses that are unrelated to the judiciary. In this way, the Courts will be provided with the specialized facilities required for the fair and efficient administration of justice, and a historically important building resource will be preserved for its essential original intended use.

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I.

TRANSMITTAL LETTER FROM MAYOR



CITY OF BOSTON • MASSACHUSETTS

OFFICE OF THE MAYOR
RAYMOND L. FLYNN

October 19, 1988

Honorable Levin H. Campbell
Chief Judge
United States Court of Appeals
for the First Circuit
J.W. McCormack Federal Building, Rm. 1618
Boston, MA 02109

Dear Chief Judge Campbell:

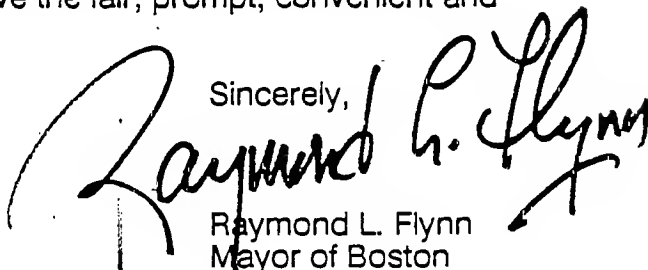
Last year I was informed that the judges of the United States Court of Appeals and United States District Court headquartered in Boston have come to believe that the McCormack Federal Building is outdated and increasingly unsafe. In particular, the judges have expressed concern that the proposed multi-million dollar renovation of the McCormack Federal Building can not result in a secure or efficient facility.

The judges have urged consideration of construction of a new federal courthouse in Boston built to modern standards which can serve Massachusetts and New England well into the Twenty First Century. During our meeting on June 28th, you asked if my administration would undertake an initial study to determine a design program for a new federal courthouse and to identify potential sites where it could be built consistent with development plans for the City of Boston.

Over the past several months my staff has worked to produce such a study, the completed version of which is enclosed. This study defines, for preliminary design purposes, the uses which should occupy a new federal courthouse; devises model courthouse floorplans to meet modern security standards; and identifies sites within downtown Boston where such a facility could be built. Twelve potential sites were reviewed intensively by my staff. Of the twelve, four are recommended for your further consideration.

I support plans to construct a new federal courthouse in Boston. I understand that initial congressional action has already been taken toward that goal. I hope that this study proves helpful as you further develop your plans. I and my administration will continue to be available to provide whatever additional assistance we can in order to assure that the federal courts in Boston are provided the facilities necessary to achieve the fair, prompt, convenient and dignified administration of justice.

Sincerely,

A large, stylized handwritten signature in black ink, which appears to read "Raymond L. Flynn". The signature is written over the word "Sincerely," and extends to the right, partially overlapping the printed name and title.

Raymond L. Flynn
Mayor of Boston

Enclosure

II.

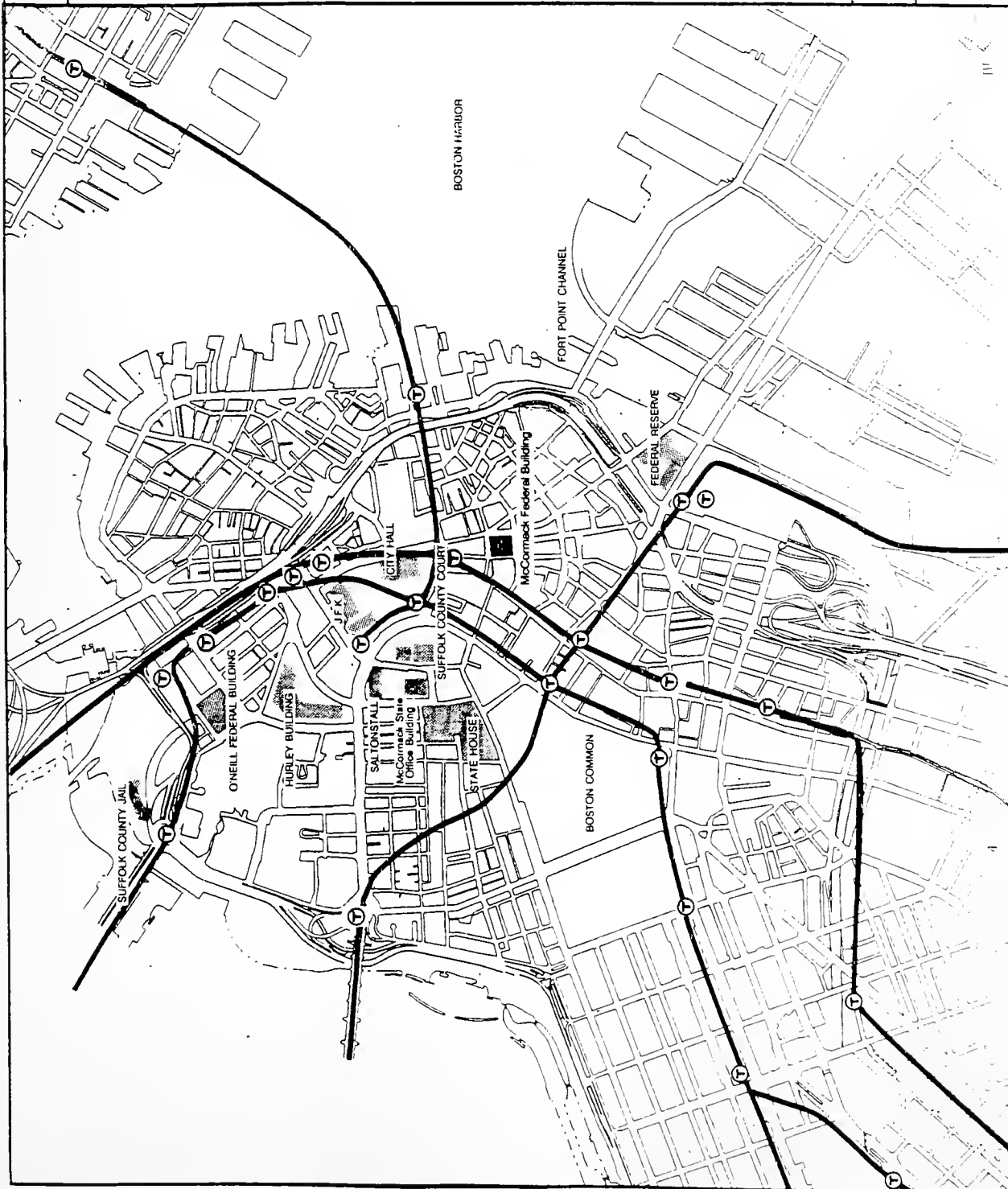
CITY CONTEXT

CITY CONTEXT

Public Transportation System and Major State
Federal and Municipal Buildings

Site Analysis for a Federal Courthouse

October 1988



III.

ANALYSIS & RECOMMENDATIONS FOR A NEW FEDERAL COURTHOUSE

ANALYSIS AND RECOMMENDATIONS FOR A NEW FEDERAL COURTHOUSE

The judges of the United States District Court for the District of Massachusetts and the United States Court of Appeals for the First Circuit, both of which have been headquartered in Boston since their creation in 1789, have requested Mayor Flynn's assistance in planning for their future facilities' needs.

While there is universal agreement that the existing facilities in Boston's 55-year old John W. McCormack Federal Building are inadequate, the judges have expressed to the Mayor their grave misgivings about the advisability of a major renovation of the McCormack Federal Building to address the needs of the United States Courts in Boston.

From a purely economic perspective such a renovation--now under active consideration by the United States General Services Administration--appears to be inadvisable. In its draft Management Plan for the renovation, GSA conservatively estimated--according to generally accepted principles of accounting by the United States government for major capital improvements--that the 30-year present value cost of renovation of the McCormack Federal Building for the Court's needs would be some 32% more expensive than the construction of a new court facility.

Under the circumstances, the judges have requested the Mayor's assistance in planning for a new federal courthouse in Boston. At Mayor Flynn's direction, City of Boston and Boston Redevelopment Authority staff have initiated such a planning effort, certain findings of which are presented in this Site Analysis for a New Federal Courthouse in Boston.

Inadequacy of the McCormack Federal Building as a Courthouse

It appears that the misgivings of the federal judiciary regarding the adequacy of the McCormack Federal Building to meet the needs of the federal courts in Boston are well founded. No matter how much money is spent on renovation, the McCormack Federal Building cannot meet the needs of the federal judiciary in Boston for either the near or long term future.

- o The building does not meet basic courthouse security standards and the proposed multi-million dollar renovation program cannot make it secure. In an extraordinary order issued by the judges of the District Court in March 1987 (Appendix A), the judges reported that the Director of the U.S. Marshal Service found security facilities in Boston to be, "the worst he had ever seen in a federal judiciary facility." Secure courthouses require separate elevator cores and corridor systems for judges and jurors, defendants in custody, and the general public. The configuration of the 55 year old McCormack Federal Building precludes the installation of modern security facilities.
- o It would border on impossible to keep the courts fully operational through the renovation period which is likely to continue for five years or more. There is no alternative space available for the court to operate while contractors repair or replace mechanical and electrical

systems. The system of federal justice in Boston would be substantially impaired by the renovations.

- o Even after a multi-million dollar renovation, court-related space in the McCormack Federal Building would remain inappropriate and inadequate. When the McCormack Federal Building opened in 1933, there were just three jury courtrooms and three resident judges' chambers on two adjacent floors. By the end of this year there will be twenty jury courtrooms on floors 2, 3, 9, 11, 12, and 15 and judges chambers spread across these and seven other floors. Renovation will not improve this situation, and will not remedy the fact that courtrooms and chambers are of disparate sizes which do not meet the standards of the Court Design Guide published by the General Services Administration. Even if the renovation is completed, the building will still have no capacity to meet expansion caused by the creation of new judgeships to carry the increased workload of the federal judiciary. If new judges are appointed in the 1990's, it is apparent they will have to be housed in a facility separate from the McCormack Federal Building.

Because renovation of the McCormack Federal Building will not solve basic security and design flaws, because the renovation period will totally disrupt court operations, and because the federal courts will likely outgrow McCormack in the 1990's even if it is renovated, the U.S. Court of Appeals and District Court judges have reached the judgement that consideration of development of a new federal courthouse in Boston is not merely appropriate, it is a necessity.

Authorization and Funding for a New Federal Courthouse

A new federal courthouse can only be constructed once it receives federal authorization and funding. Most federal building projects are authorized in a two-step process, first by the U.S. General Services Administration and then by Congress. However, recent history suggests that it is possible to receive authorization and funding through special Congressional legislation. New federal court projects in New York City's Foley Square, in Washington D.C., in Denver, and elsewhere have been approved through special legislation. In the case of a Boston federal courthouse, special legislation can save time and money by shortening the approval process and by allowing newer construction and financing methods such as private sector construction and lease/purchase financing arrangements. Special legislation in this case could also give the General Services Administration the flexibility to retain the McCormack Federal Building or to surplus the building either separately or in conjunction with the solicitation of developers interested in building the new courthouse.

After reviewing the options, City of Boston staff in March 1987 recommended that special legislation should be considered for authorization and funding of a new federal courthouse in Boston. The special legislation should identify the site for the new courthouse, allow construction by a private developer, allow financing through a lease/purchase agreement, and allow the GSA Administrator discretion to retain or to surplus the McCormack Federal Building. The net cost to the Federal Building Fund of a new Boston federal courthouse can be greatly reduced if the special legislation also allows the proceeds from any disposition of the McCormack Federal Building to be deposited in the Federal Building Fund rather

than the General Treasury. A description of the McCormack Building's historic features, to be considered in any disposition, is presented in Appendix B.

Development Program for a New Federal Courthouse

A program of uses for a new courthouse has been prepared and is presented in Chapter IV. This program is based on national standards for U.S. courts, information particular to the Boston courts, and plans for a new federal courthouse in New York City.

To provide adequate space for all the necessary uses of a new federal courthouse, our analysis suggests the following:

- o The total net square feet of space needed for the courts, court-related uses, and federal law enforcement offices is estimated to be 428,000 net square feet. Adding space for mechanical and circulation systems, the estimated gross square feet needed in the new courthouse is 535,000 gross square feet.
- o For security reasons, separate elevator and corridor systems are needed for the general public, defendants in custody, and judges and jurors.
- o Courtroom floors with these three separate circulation systems only become efficient once they are large enough to include 6 or preferably 8 courtrooms per floor.
- o The floorplates on courtroom floors must therefore be approximately 50,000+ gross square feet (6 courtrooms) to 60,000+ gross square feet (8 courtrooms). Floorplates on non-courtroom floors can be considerably smaller.

Recommended Locations for a New Federal Courthouse

The special requirements of a federal courthouse, as described in the program, dictate the characteristics of an appropriate site. The site must be of sufficient size and configuration so the floor layouts and building envelope are efficient and in compliance with current standards for security. The site must be accessible for jurors and the public by public transportation. For construction to proceed without undue delay, the site should be assembled already or should be one which can be assembled within a reasonable timeframe. The site must also be appropriate for a new courthouse from an urban design perspective.

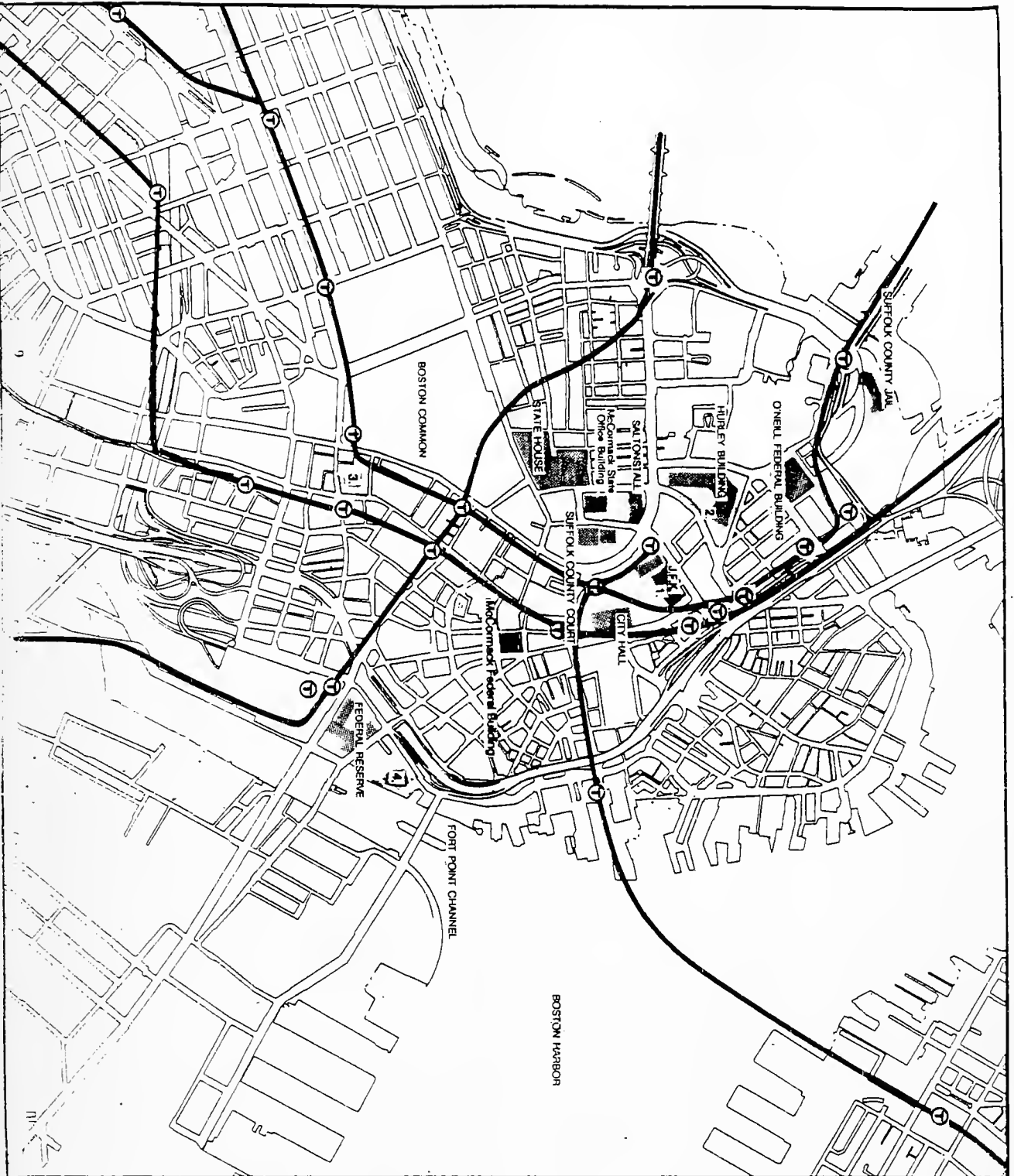
With these criteria in mind, twelve sites were reviewed as likely new courthouse locations. Of the twelve, four are recommended as appropriate for further consideration. (See Chapters V, VI, VII, and VIII). Ranked in order of preference, they are as follows:

- #1: The site of the John F. Kennedy Building Annex in Government Center. The site is large (2.75 acres/120,000 square feet), rectangular, and federally owned. Access to public transit and public parking is excellent. The existing annex building is inefficiently laid out and in need of substantial

renovation. The site is considered appropriate for a new federal courthouse from an urban design perspective.

- #2: The vacant site on New Chardon Street at Merrimack Street. This site is also large (3.1 acres/135,000 square feet), although irregularly shaped. It is owned by the Commonwealth of Massachusetts. Like the JFK Annex site, it is conveniently located near other federal, state, and municipal buildings. Access to public transit and public parking is excellent.
- #3: Commonwealth Center, a new private development planned on Washington Street in Boston's Cultural District, one block from Boston Common. The site is of sufficient size (2.0 acres/88,000 square feet) if the courthouse is built as part of a larger mixed use development. The site is privately controlled and already assembled as one parcel. Access to public transit is very good.
- #4. The Boston Edison owned site on Atlantic Avenue, between Northern Avenue and Congress Streets. The site is also large (2.75 acres/120,000 square feet), nearly rectangular, and assembled. However, the site is encumbered by a Boston Edison substation, a Boston Fire Department high pressure water system, underground electrical systems, and, for the next several years, construction of the Central Artery. Access to public transit is good.

After extensive analysis, the eight other sites reviewed were rejected as not bearing further analysis. They are variously too small, under litigation, inaccessible by public transit, and/or inappropriate from an urban design perspective. (See Chapter IX). It is recommended that the most appropriate of the above recommended sites be chosen and identified in the special legislation which will be sought to authorize and fund the new federal courthouse project.



RECOMMENDED COURTHOUSE SITES

- 1. J.F.K. Annex
- 2. New Chardon Street
- 3. Commonwealth Center
- 4. Boston Edison - Atlantic Avenue

Site Analysis for a Federal Courthouse

October 1983

IV.

PROGRAM FOR A FEDERAL COURTHOUSE

PROGRAM FOR A FEDERAL COURTHOUSE

Boston, Massachusetts

1. Net Space Requirements

Net square footage requirements are based upon the twenty year projections contained in the 1984 Space Planning Study of the McCormack Federal Building, the United States Courts Design Guide, and correspondence relating to the proposed Foley Square courthouse annex in New York City. Total net square footage is 428,000 with 24 courtrooms (2 Appeals Court, 22 District Court).

Court of Appeals and ancillary uses (including 2 courtrooms)	75,000	net sq.ft.
District Court and ancillary uses (including 22 full jury courtrooms and magistrates facilities)	240,000	net sq.ft.
U.S. Attorney's Office	50,000	net sq.ft.
Strike Force	10,000	net sq.ft.
U.S. Marshal Service	20,000	net sq.ft.
Probation Office	12,000	net sq.ft.
Pre-Trial Services	5,000	net sq.ft.
Bureau of Prisons	1,000	net sq.ft.
Grand Jury	7,500	net sq.ft.
Press Room	1,000	net sq.ft.
Cafeteria	6,000	net sq.ft.
Total - 24 courtroom facility	427,500	net sq.ft.

2. Gross Space Requirements

For the purpose of this program, the building's efficiency is being calculated at 80% to allow for the unique requirements of a courthouse. As the analysis progresses, the efficiency of the building may be adjusted up or down to reflect actual site conditions and any modifications in the program. With a net space requirement of 428,000 square feet and an efficiency of 80%, the gross square footage requirement of a new courthouse is 535,000 gross square feet.

3. Typical Courtroom Floor

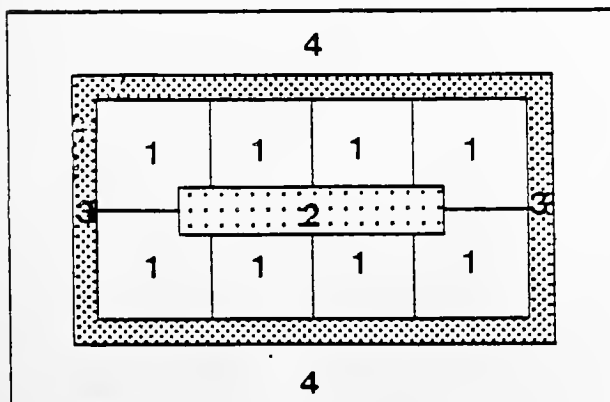
For security purposes, a modern courthouse requires separate elevator systems for (1) the general public, (2) defendants in custody, and (3) judges and jurors. The general public elevator should open on a public corridor; the defendants in custody elevator should open into a holding area opening directly into courtrooms; the judge and juror elevator should open onto a secure corridor allowing judges and jurors access to courtrooms without contact with defendants or the general public. The evolving role of the federal judiciary also requires larger courtrooms for multi-defendant trials.

With this circulation pattern given, a typical courtroom floor should include the following uses:

1.	Large courtrooms for Court of Appeals (2 total in building) and for District Court (4 total in building)	@	2,800	sf ea.
2.	Standard courtrooms for District Court (18 total in building)	@	2,100	sf ea.
3.	Chief Judge's chambers: two total needed in building -- one for Court of Appeals and one for District Court (includes Chief Judge's office, library, court conference room, law clerks, administrative staff, and restrooms)	@	2,700	sf ea.
4.	District Judge's chambers (includes Judge's office, library, conference room, law clerks, secretary, and restrooms)	@	1,800	sf ea.
5.	Jury Rooms (1.5 per courtroom)	@	450	sf ea.
6.	Holding cells (1 per courtroom)	@	50	sf ea.
7.	Secure witness waiting rooms	@	200	sf ea.
8.	Witness waiting room (2 per courtroom)	@	200	sf ea.
9.	Attorney consultation rooms (2 per courtroom)	@	150	sf ea.
10.	Senior Judge's chambers	@	1,800	sf ea.
11.	Visiting Judge's chambers	@	1,000	sf ea.
12.	Deputy Clerk's lobby/chambers (1 per courtroom)	@	150	sf ea.
13.	Court reporters room (1 per courtroom)	@	250	sf ea.
14.	Courtroom storage room (1 per courtroom)	@	75	sf ea.
15.	Public corridor			
16.	Secure corridor			
17.	Public elevator			
18.	Judges/Jury secure elevator			
19.	Defendant's secure elevator			
20.	Freight elevator			
21.	Security control desk			
22.	Public restrooms			
23.	Fire stairs			

The most efficient layout of a courtroom floor appears to include a central "double loaded" public corridor onto which all courtrooms face, a secure corridor circling the rear of the courtrooms, and judges' chambers and jury rooms along the perimeter of the building.

Double Loaded Corridor Plan



Key

- (1) Courtrooms
- (2) Public Corridor
- (3) Secure Corridor
- (4) Judges' Chambers and Jury Rooms

4. Floorplate

In order to achieve operational efficiency, the floorplates of courthouses are larger than those required by commercial office buildings. Using the 45,000 square foot plate of the Dirksen Federal Courthouse in Chicago as a preliminary model, the search for an appropriate site should concentrate on those sites which can accommodate the following floorplates:

50,000+ gross sq.ft.	6 courtrooms per floor
60,000+ gross sq.ft.	8 courtrooms per floor

Sites that can accommodate floorplates of 50,000+ square feet are extremely rare in Boston.

5. Site Requirements

Large floorplates lead to large site requirements. Using a 80% building coverage to site area ratio, the following minimum site areas will be required:

<u>Floorplate</u>	<u>Site Required</u>
50,000+ gross sq.ft.	62,500+ sq.ft./1.4+ acres
60,000+ gross sq.ft.	75,000+ sq.ft./1.7+ acres

80% building coverage is a guide. The final ratio will be determined by site conditions.

6. Floor to Floor Heights

The floor to floor dimension for courtroom floors and the lobby floor will be 20 feet. The non-courtroom floors will be 13 feet floor to floor. The magistrate's courtrooms will be located on a 13 foot floor.

7. Parking

Parking is extremely limited in the McCormack Federal Building. The site selected should allow for an expansion of below grade parking and any special below grade requirements of the U.S. Marshal Service for a secure facility to transfer defendants in custody.

8. Expansion

The history of growth of the federal courts in Boston strongly suggests that any design must be adapted to lend itself to prompt expansion. For example, since 1978, the number of active sitting judges has doubled in Boston. While no such drastic increases can be anticipated in the next ten years, it must be assumed that the space needs of the federal courts headquartered in Boston will continue to increase steadily. The new courthouse should make such potential increases an element of its design plan.

9. Site Selection Criteria

In reviewing potential sites, five criteria will be used:

- a. Sites which will allow the construction of an efficient building which satisfies the courthouse program.
- b. Sites which will allow the construction of a building which meets current standards for security.
- c. Sites which are accessible for jurors and the public by public transportation.
- d. Sites which are assembled or can be assembled and made available for courthouse construction within a reasonable timeframe.
- e. Sites which are appropriate from an urban design perspective for a new courthouse.

V.

RECOMMENDED SITE #1

J.F.K. ANNEX

Site: JFK Annex Site

Location: City Hall Plaza, Sudbury Street and Congress Street

Size: 2.75 acres - 120,000 square feet

Ownership: United States Government
General Services Administration

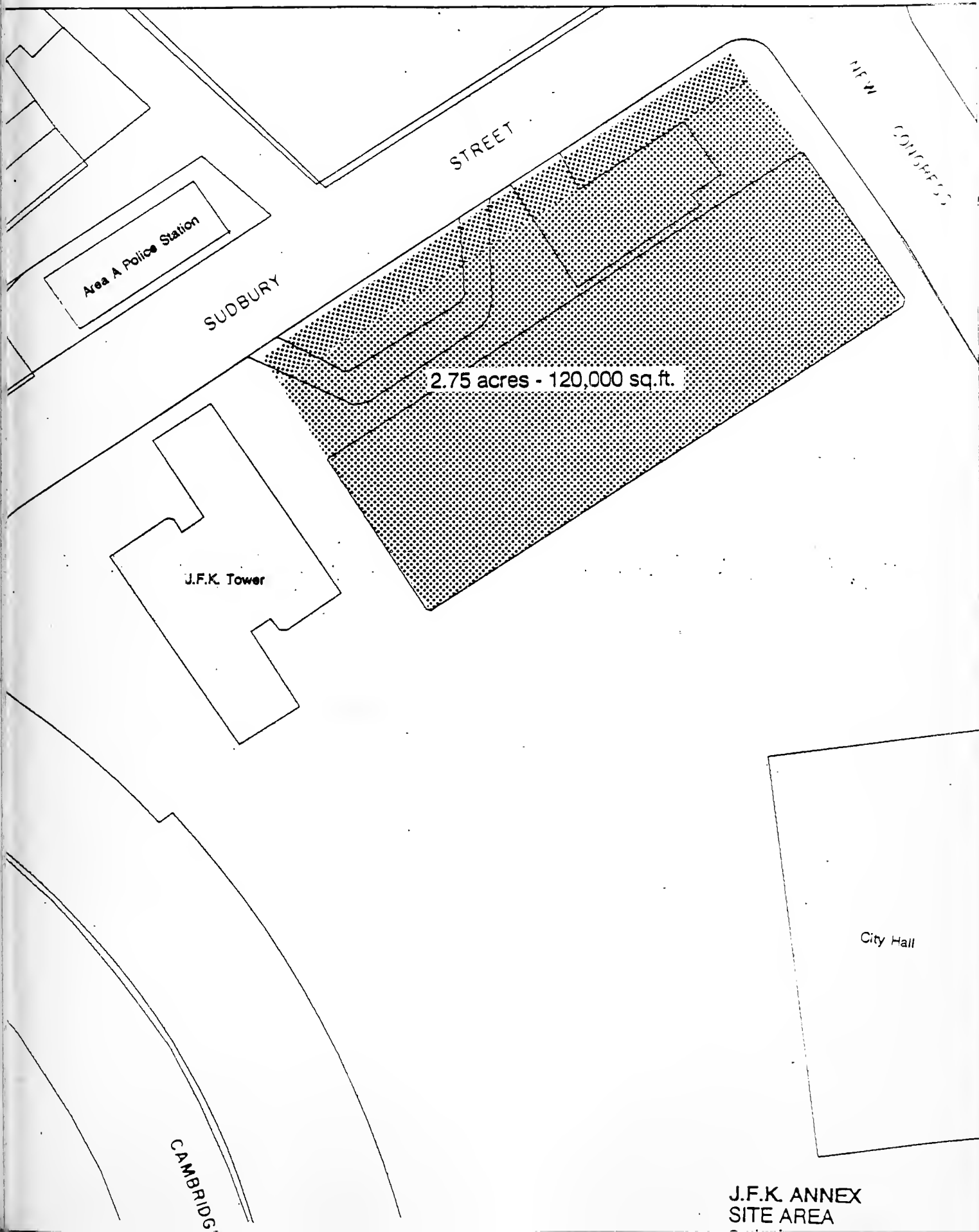
Current Use: Four story office building - annex to JFK Building tower

The JFK Annex site is recommended for the following reasons:

- o The site can fulfill the requirements of the courthouse program for a secure building.
- o The site is fully assembled and owned by the United States Government.
- o The site can be made available for courthouse development in a timely manner, sooner than any other recommended site.
- o The site can accommodate the most efficient courthouse floorplate and achieve a net to gross efficiency exceeding 80%. The current JFK annex has a net to gross efficiency of 68%.
- o The site has outstanding public transportation access.
- o The site will allow the design of a major public building, enhancing City Hall Plaza and the overall urban design of Government Center.
- o The site is conveniently located close to major federal, state, and municipal buildings.

The challenge of constructing a courthouse on this site will be the need to demolish the existing JFK Annex and relocate the current occupants of the Annex. The General Services Administration is currently planning to retain and renovate the Tower and Annex, which will require some temporary relocations of current occupants.





STREET

NEW CONGRESS

Area A Police Station

SUDBURY

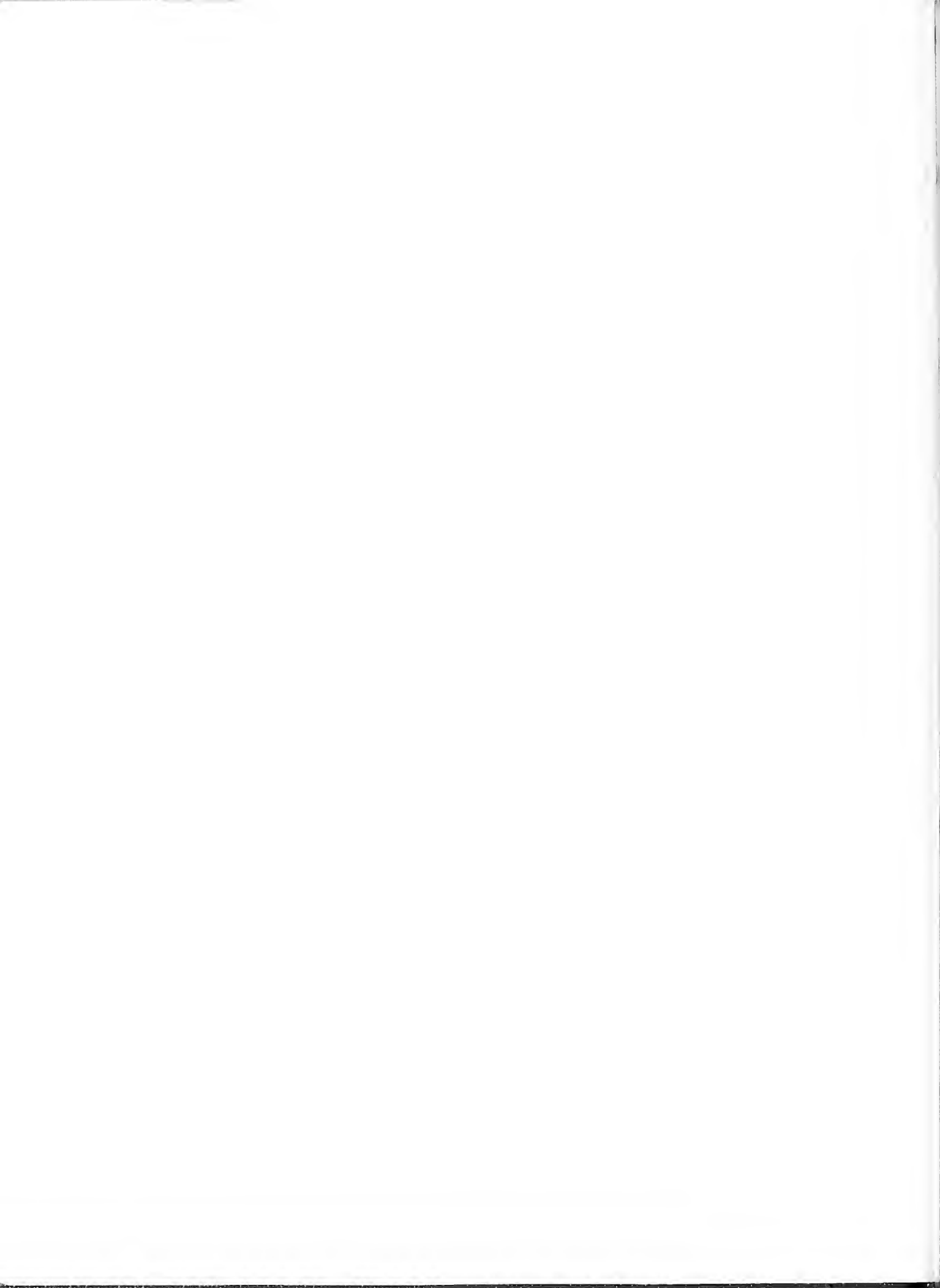
2.75 acres - 120,000 sq.ft.

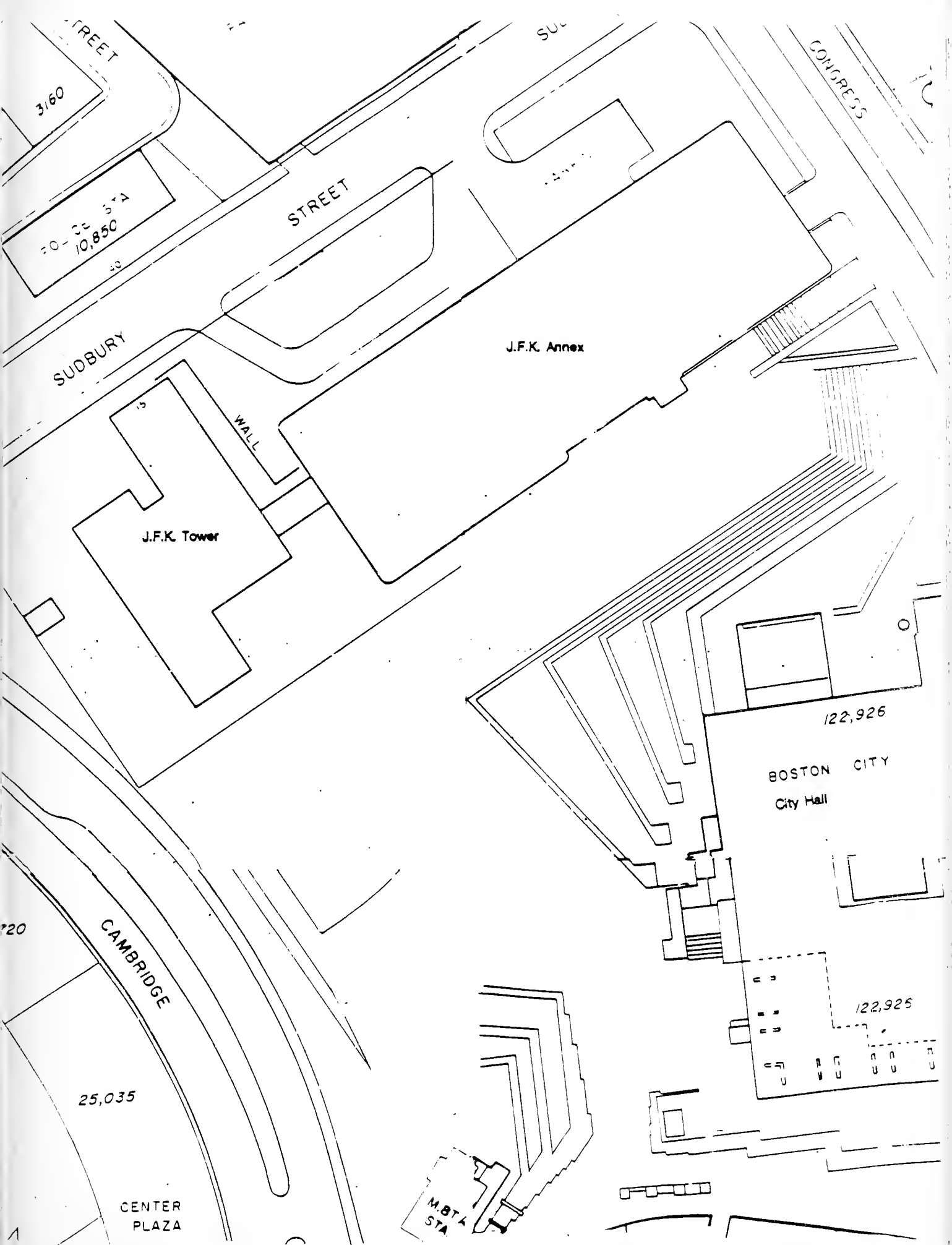
J.F.K. Tower

City Hall

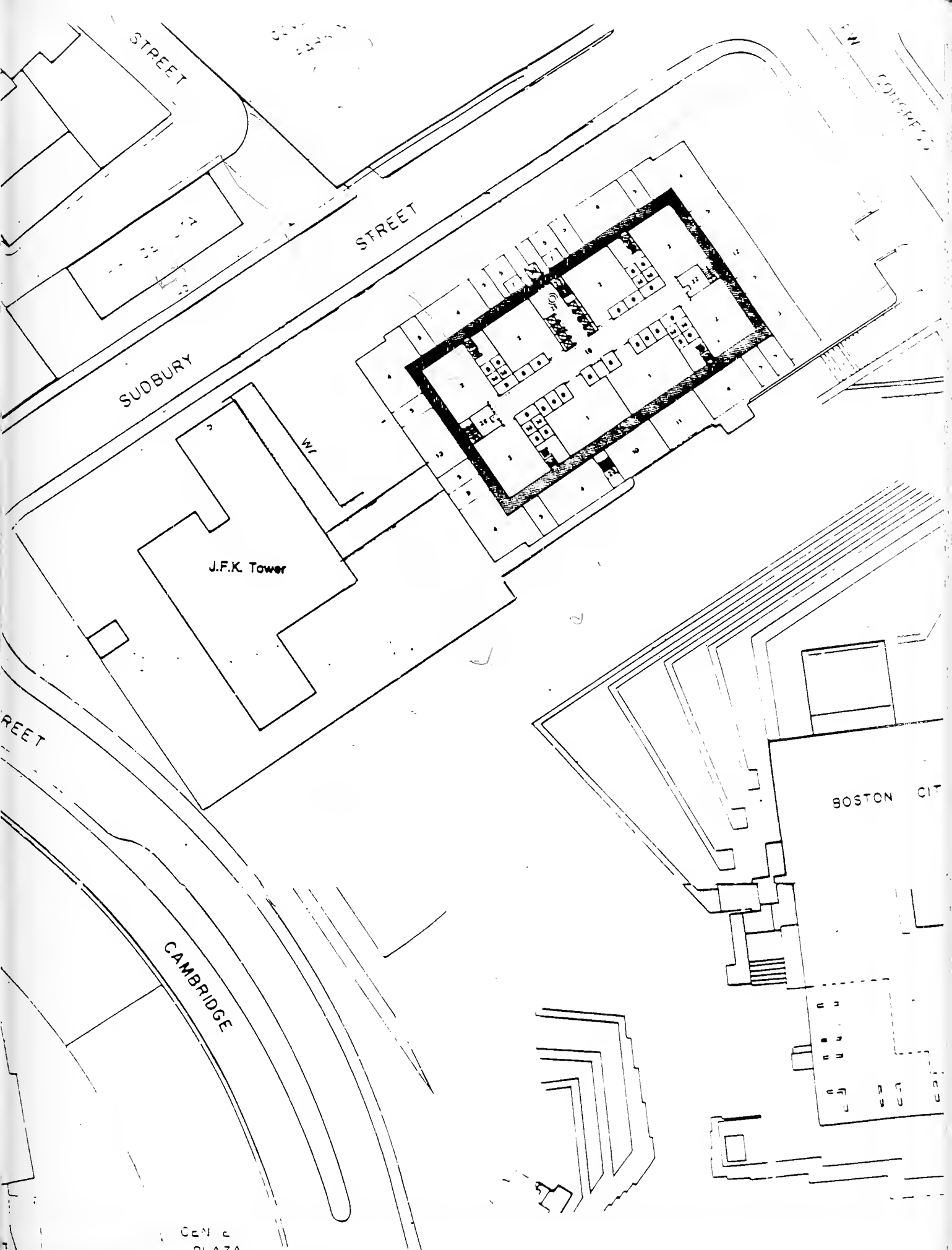
CAMBRIDGE

J.F.K. ANNEX
SITE AREA









J.F.K. ANNEX
SITE PLAN

RECOMMENDED SITE 1: J.F.K. ANNEX

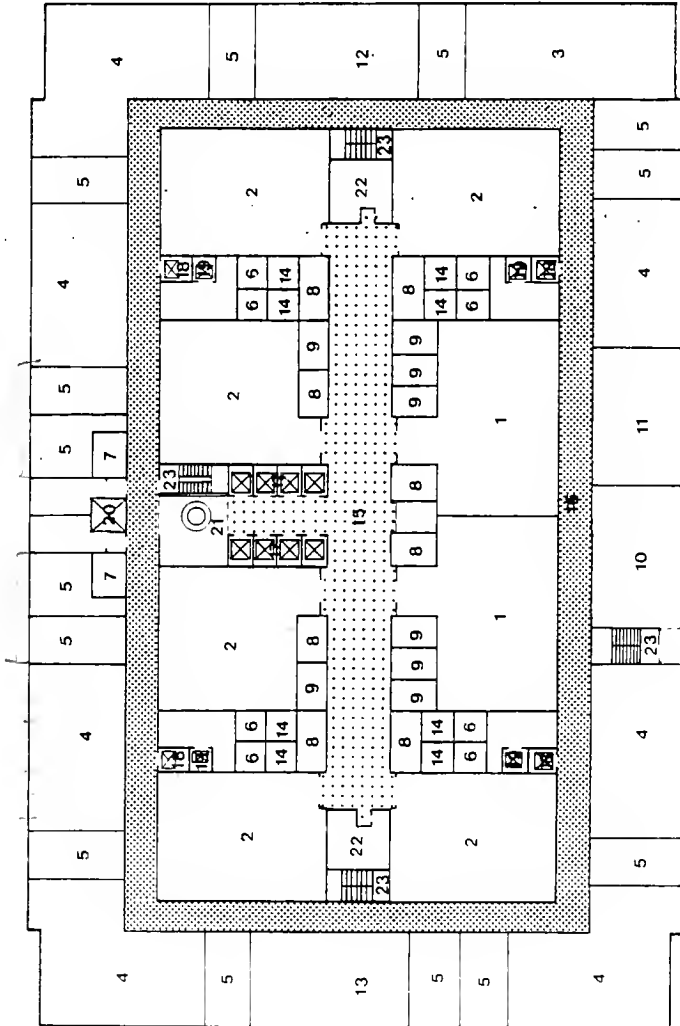
Floor Plan KEY

- 1 Large courtrooms
- 2 Standard courtrooms
- 3 Chief Judge's chambers
- 4 District Judge's chambers
- 5 Jury Rooms
- 6 Holding cells
- 7 Secure witness waiting rooms
- 8 Attorney consultation rooms
- 9 Senior Judge's chambers
- 10 Visiting Judge's chambers
- 11 Deputy Clerk's office
- 12 Court reporter's room
- 13 Courtroom storage room
- 14 Public corridor
- 15 Secure corridor
- 16 Public elevator
- 17 Judges/Jury secure elevator
- 18 Defendant's secure elevator
- 19 Freight elevator
- 20 Security control desk
- 21 Public restrooms
- 22 Fire stairs
- 23

Public Corridor

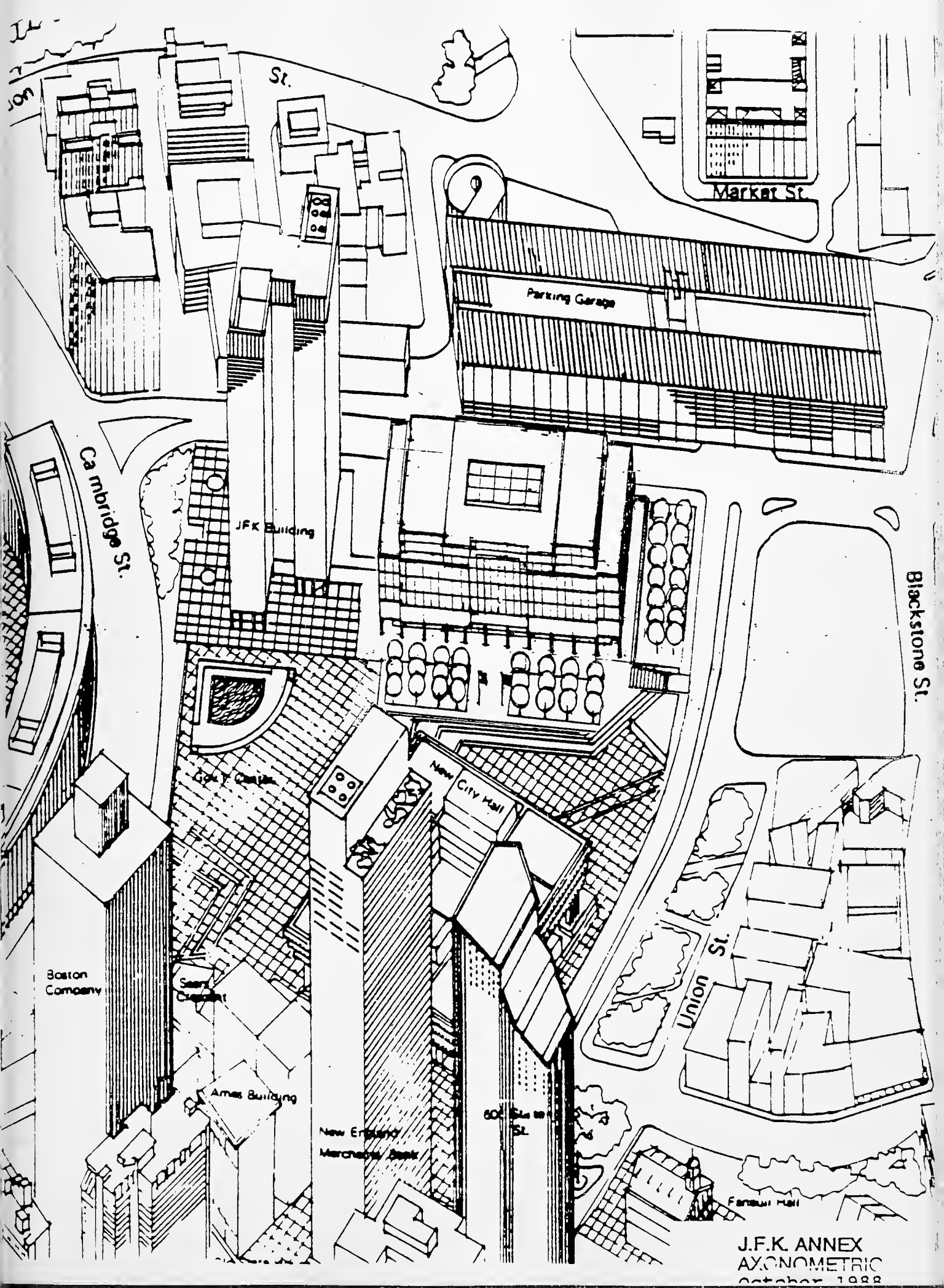
Secure Corridor

Floorplate - 67,200 sq. ft.



Site Analysis for a Federal Courthouse

October 1988



St.

Market St.

Parking Garage

JFK Building

Cambridge St.

Blackstone St.

Boston Company

City Hall

New City Hall

Union St.

Ames Building

New England Merchants Bank

Faneuil Hall

J.F.K. ANNEX
AXONOMETRIC
October 1988

VI.

RECOMMENDED SITE #2

NEW CHARDON STREET

Site: New Chardon Street
Location: New Chardon Street and Merrimack Street
Size: 3.1 acres - 135,000 square feet
Ownership: Commonwealth of Massachusetts
Current Use: Parking at grade

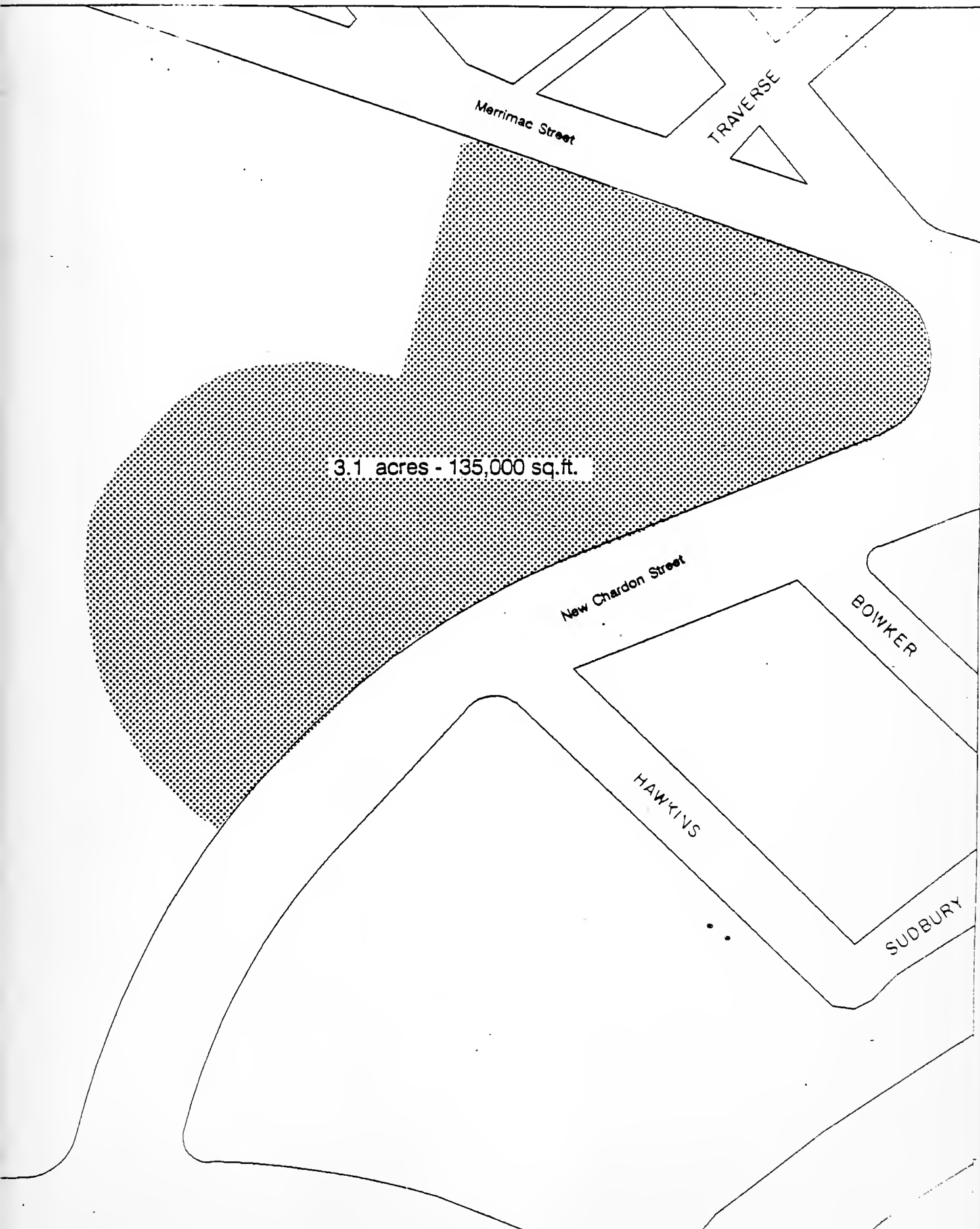
The New Chardon Street site is recommended for the following reasons:

- o The site can fulfill the requirements of the courthouse program for a secure building.
- o The site is fully assembled and owned by the Commonwealth of Massachusetts.
- o The site can be made available for courthouse development either through negotiation or acquisition from the Commonwealth.
- o The site has outstanding public transportation access.
- o The site is conveniently located close to major federal, state, and municipal buildings.

The challenges of constructing a courthouse on this site include the site's irregular configuration, the need to negotiate with the state over the price of land acquisition (special state legislation may be needed to authorize such a land sale), and the fact that a mixed-use project including 400 units of affordable housing was proposed for this site in 1985. The prospects of state legislation embodying the housing proposal are unknown in light of the state's current fiscal constraints.



Public Transportation System
New Chardon Street
October 1988



3.1 acres - 135,000 sq. ft.

Merrimac Street

TRAVERSE

New Chardon Street

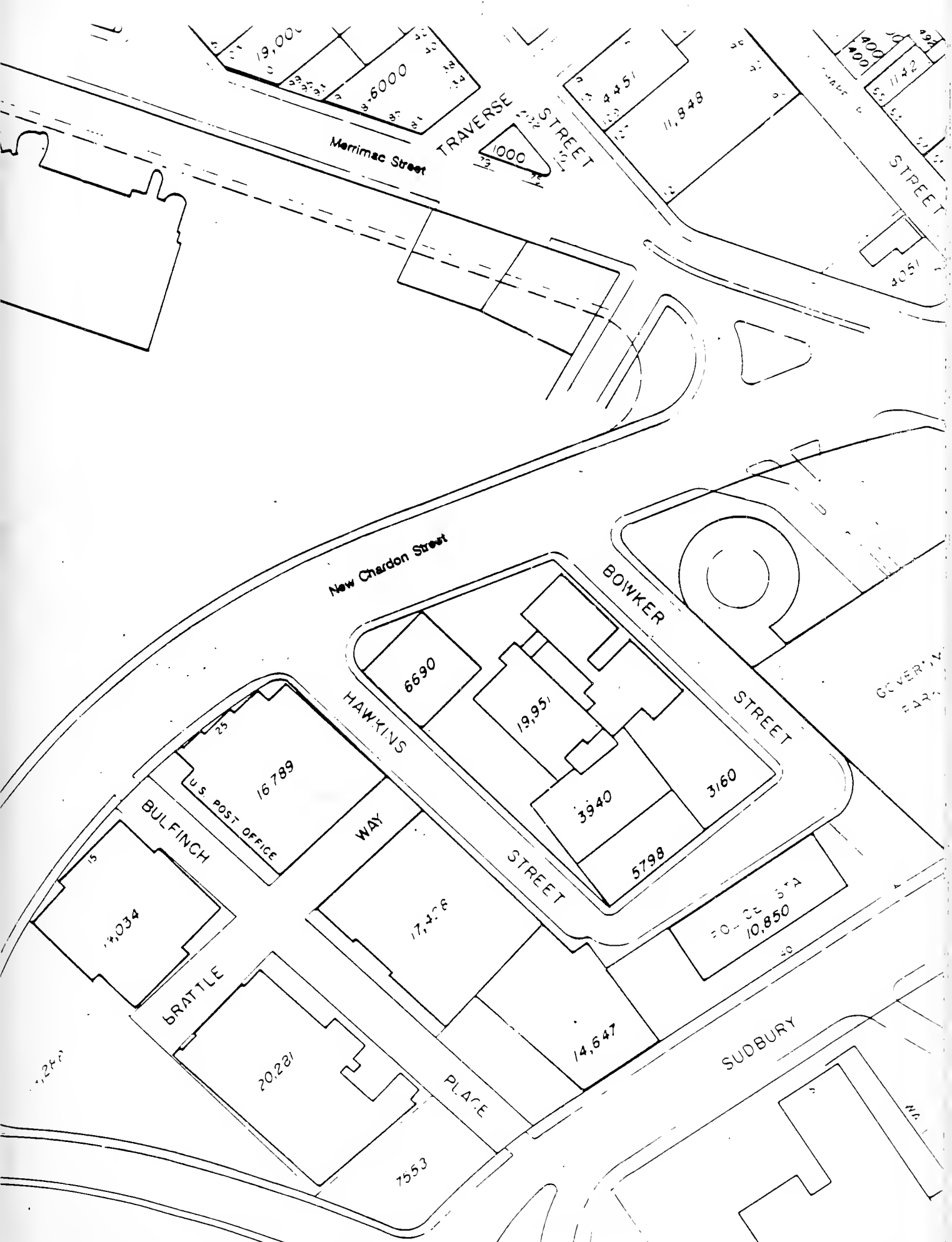
BOWKER

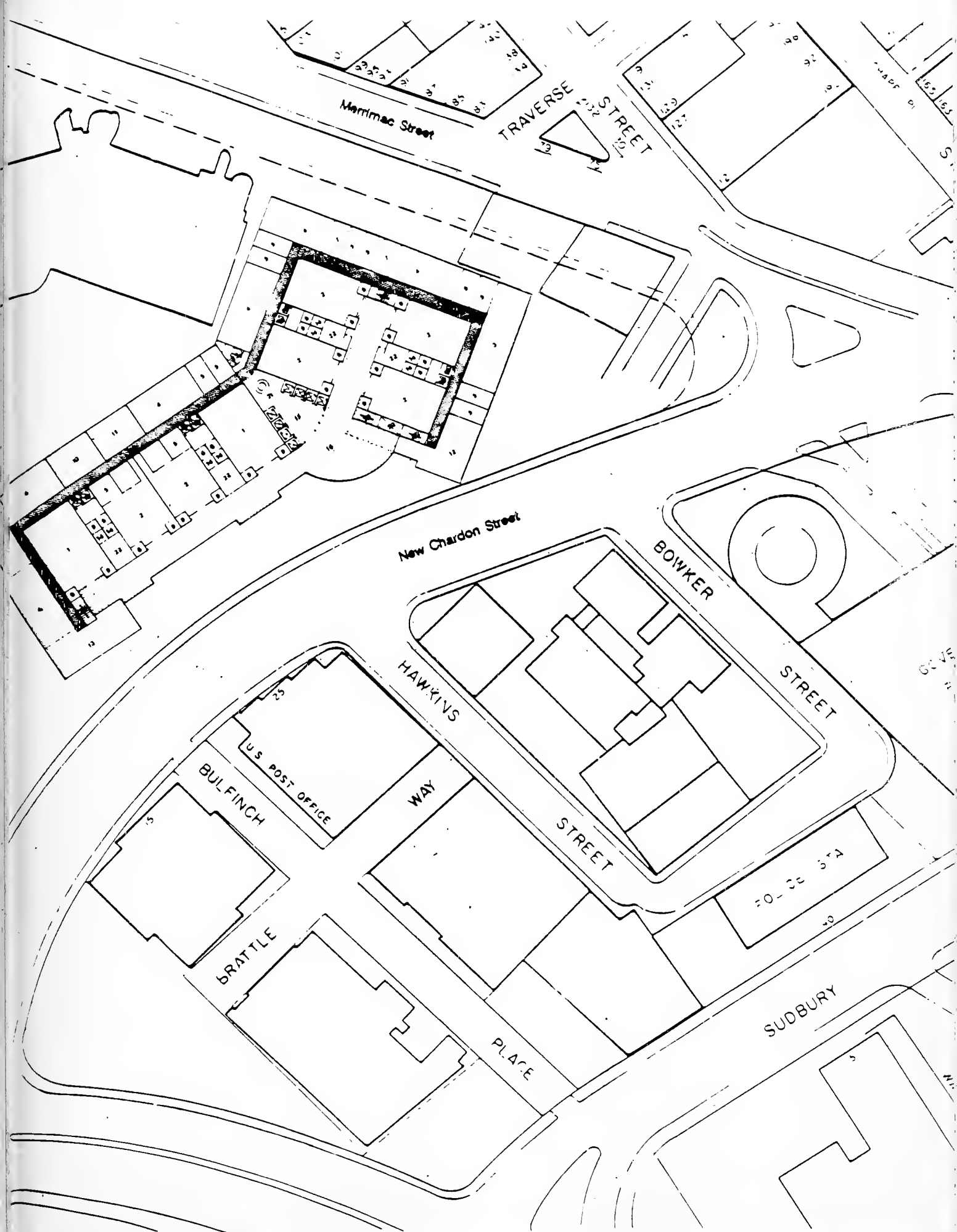
HAWKINS

SUDBURY

NEW CHARDON STREET
SITE AREA
October 1988







RECOMMENDED SITE 2: NEW CHARDON STREET

Floor Plan KEY

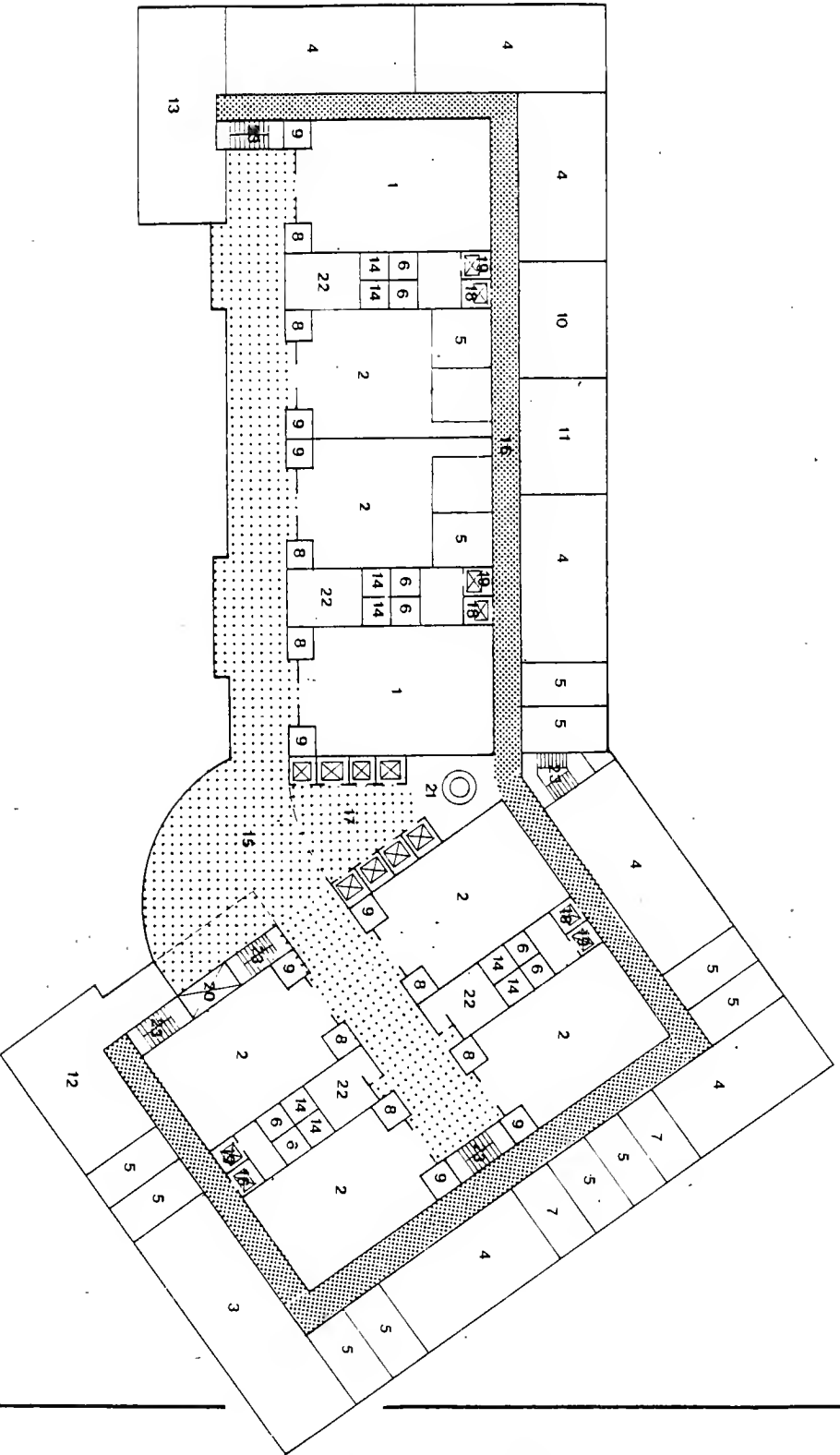
- 1 Large courtrooms
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- 5 Jury Rooms
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- 8 Witness waiting room
- 9 Attorney consultation rooms
- 10 Senior Judge's chambers
- 11 Visiting Judge's chambers
- 12 Deputy Clerk's office
- 13 Court reporters room
- 14 Courtroom storage room
- 15 Public Corridor
- 16 Secure Corridor
- 17 Public elevator
- 18 Judges/Jury secure elevator
- 19 Defendant's secure elevator
- 20 Freight elevator
- 21 Security control desk
- 22 Public restrooms
- 23 Fire stairs

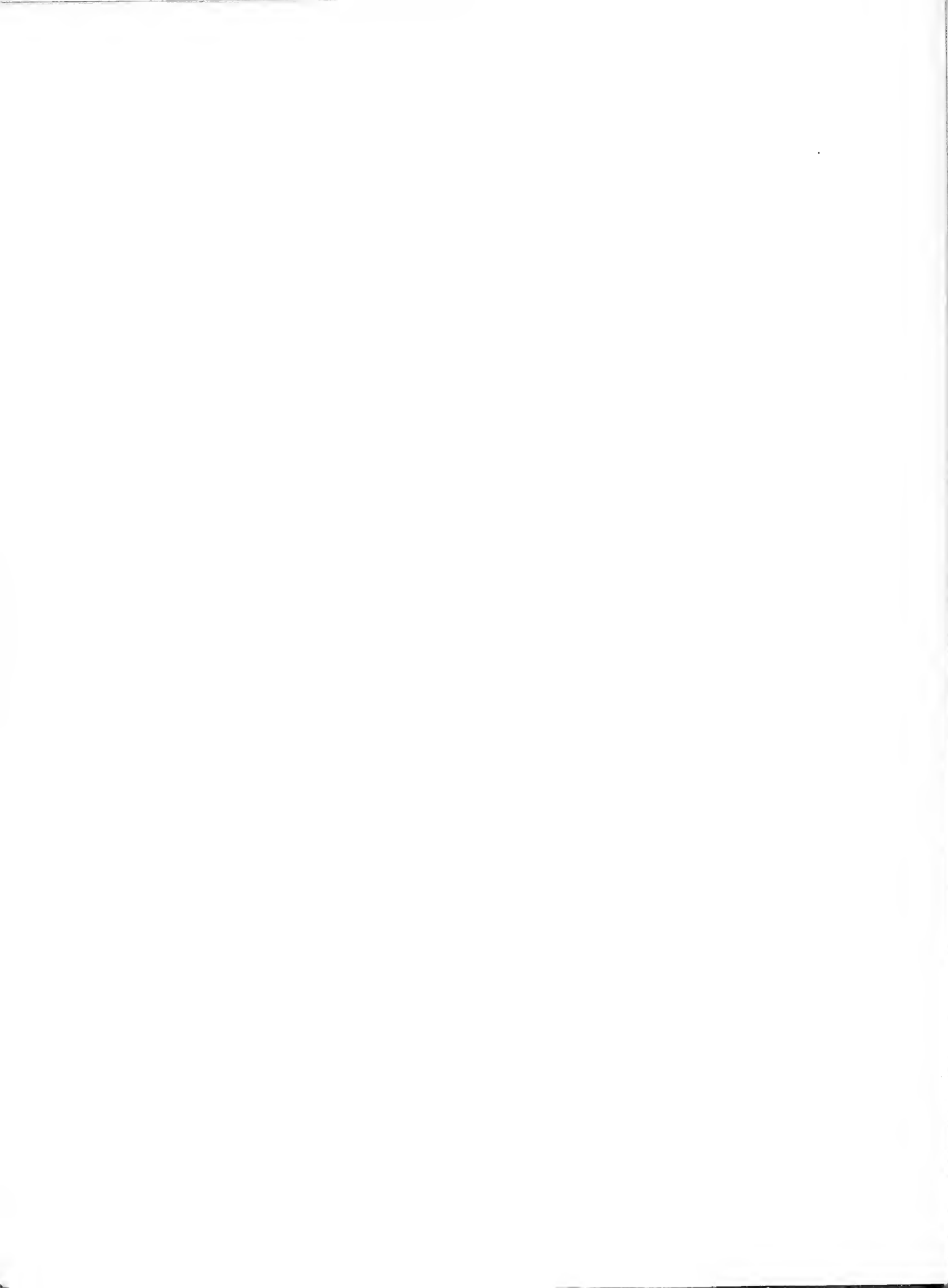
- [---] Public Corridor
- [---] Secure Corridor

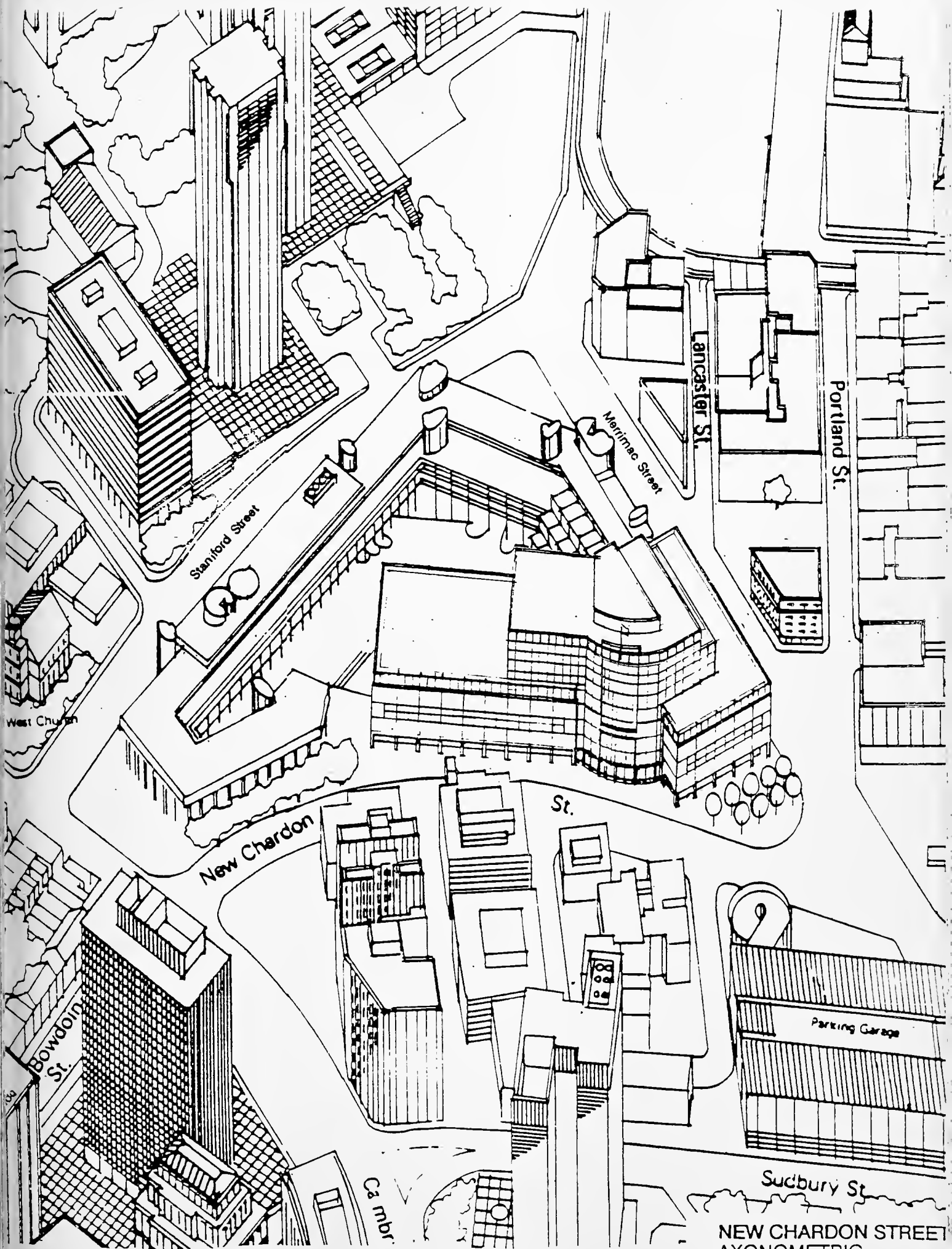
Floorplate - 69,000 sq ft

Site Analysis for a Federal Courthouse

October 1988







NEW CHARDON STREET
AXONOMETRIC
Sketch 1933

VII.

RECOMMENDED SITE #3

COMMONWEALTH CENTER

Site: Commonwealth Center - Parcel 30
Location: Washington Street, Boylston Street and Avery Street
Size: 2.0 acres - 88,000 square feet
Ownership: F.D. Rich / A.W. Perry Joint Venture
Current Use: Mixed use - commercial, retail, parking

The Commonwealth Center site is recommended for the following reasons:

- o The site can fulfill the requirements of the courthouse program for a secure building.
- o The site is fully assembled and owned by the F.D. Rich/A.W. Perry Joint Venture.
- o The site can be made available for courthouse development through negotiation with the Joint Venture.
- o The site has good public transportation access.

The challenge of constructing a courthouse on this site is that the interest of the current site owners in constructing a courthouse is contingent upon their receipt of development rights to the McCormack Federal Building and agreement that a private office tower can be built above a portion of the courthouse. The private office tower's elevator and other mechanical systems would need to penetrate the courthouse floors.



Public Transportation System
Commonwealth Center
October 1988

Boston Common

Tremont Street

AVERY

2.0 acres - 88,000 sq. ft.

HAYWARD

Washington Street

ESSEX

Boylston Street

TAMWORTH

LA GRANGE



COMMONWEALTH CENTER
SITE AREA
October 1988



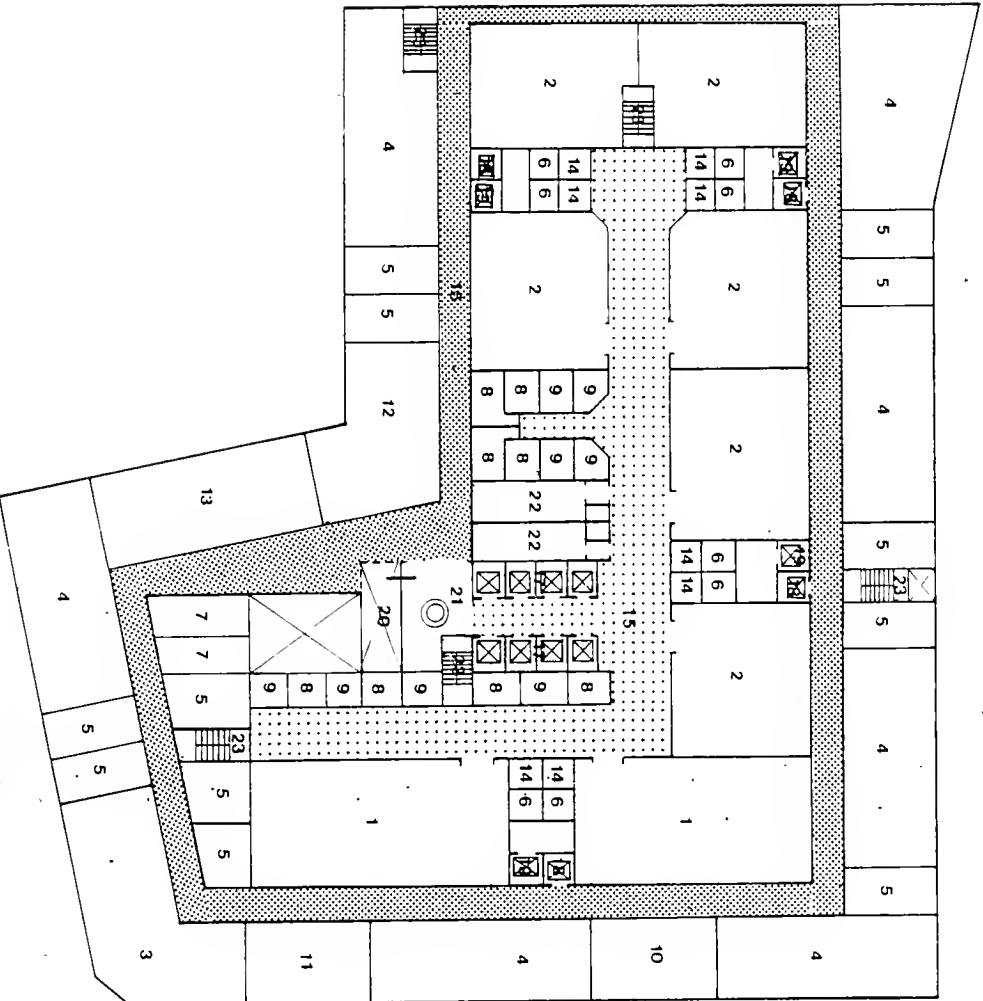
RECOMMENDED SITE 3. COMMUNITYWEALTH CENTER

Floor Plan KEY

- 1 Large courtrooms
- 2 Standard courtrooms
- 3 Chief Judge's chambers
- 4 District Judge's chambers
- 5 Jury Rooms
- 6 Holding cells
- 7 Secure witness waiting rooms
- 8 Witness waiting room
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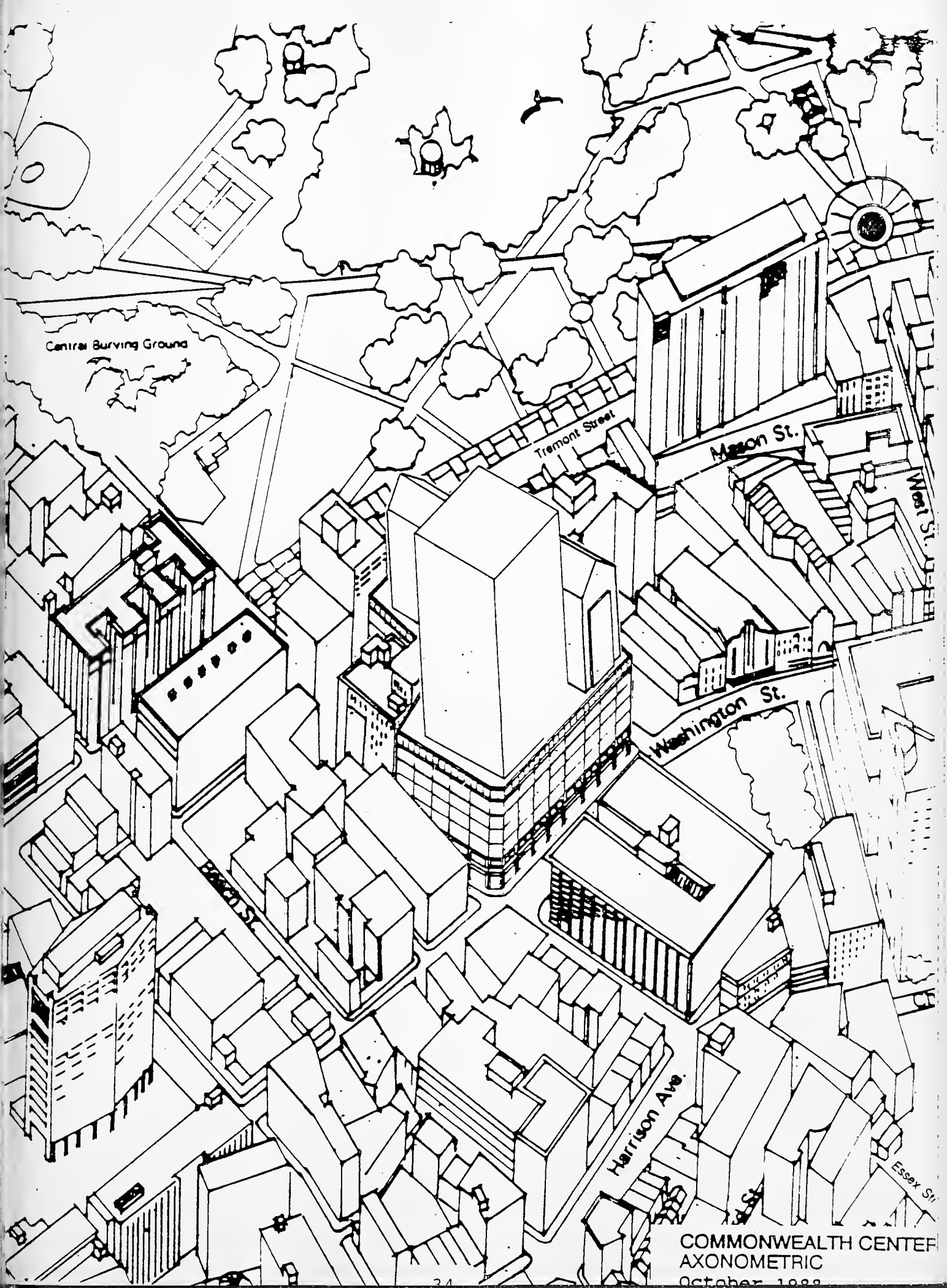
-  Public Corridor
-  Secure Corridor

Floorplate - 78,800 sq ft



Site Analysis for a Federal Courthouse

October 1988



Central Burving Ground

Tremont Street

Mason St.

West St.

Washington St.

Harrison Ave.

Essex St.

COMMONWEALTH CENTER
AXONOMETRIC

October 1988

VIII.

RECOMMENDED SITE #4

BOSTON EDISON-ATLANTIC AVE.

Site: Edison Substation - Atlantic Avenue
Location: Atlantic Avenue between Congress Street and Northern Avenue
Size: 2.75 acres - 120,000 square feet
Ownership: Boston Edison Company
Current Use: Edison substation and parking

The Edison site is recommended for the following reasons:

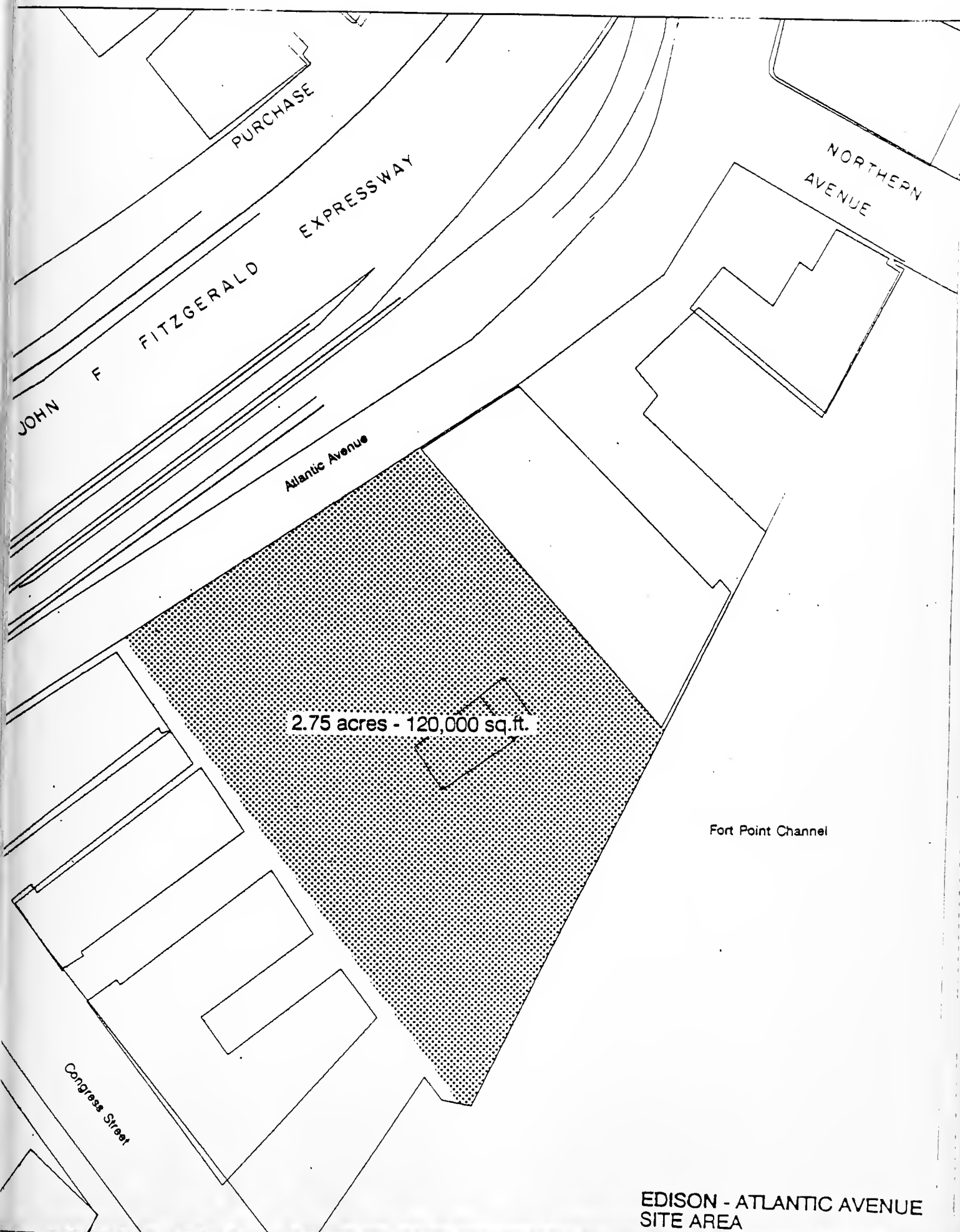
- o The site can fulfill the requirements of the courthouse program for a secure building.
- o The site is fully assembled and owned by the Boston Edison Company.
- o The site can be made available for courthouse development through negotiation with Boston Edison.
- o The site has good public transportation access.

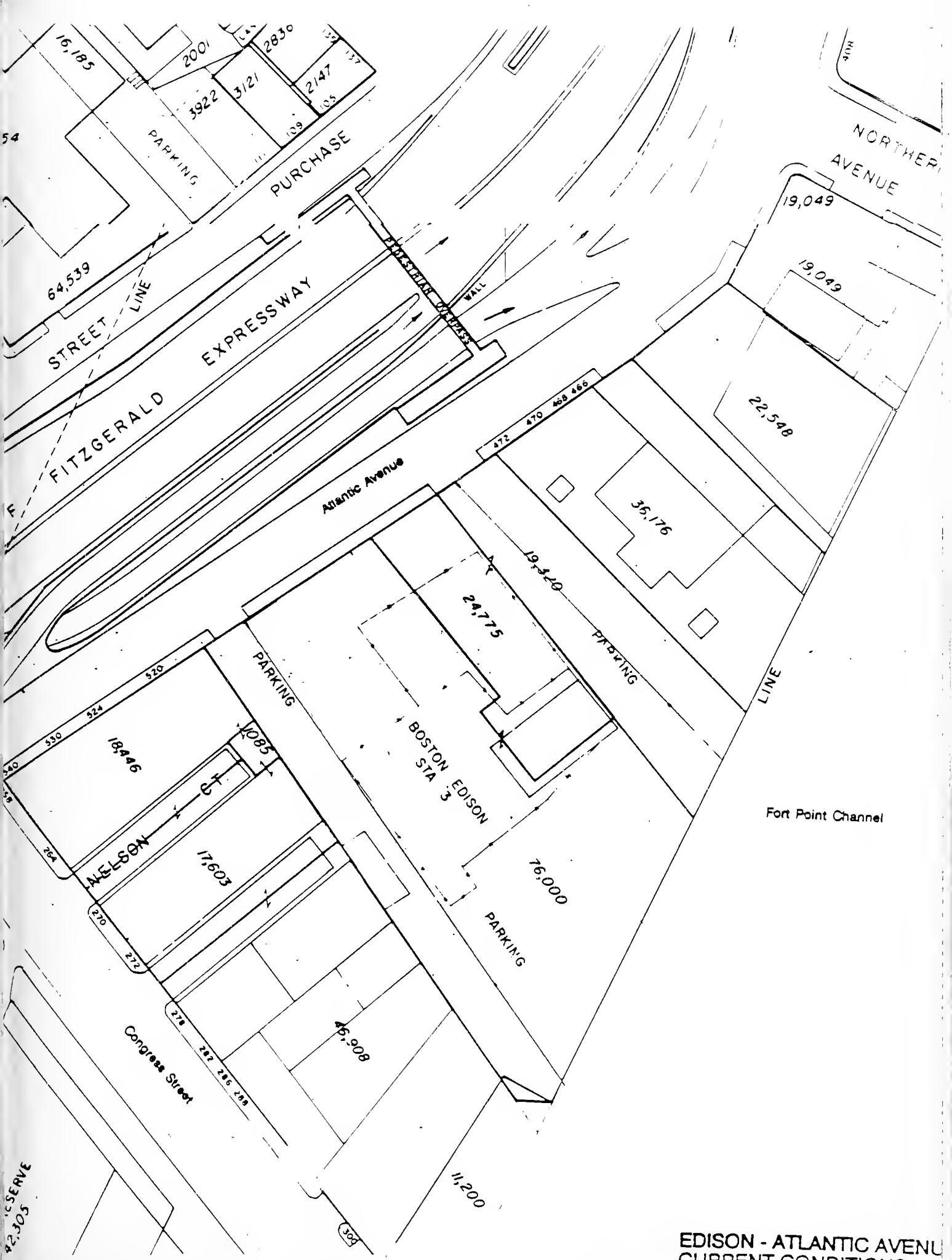
The challenges of constructing a courthouse on this site include (a) the need to retain the existing Boston Edison substation on the site, (b) the need to retain the existing City of Boston Fire Department high pressure water system, with street access, (c) the fact that main electrical lines running beneath the site must remain and must be relocated several times through the Central Artery construction project, (d) the Central Artery construction disruptions, and (e) the cost and environmental review process involved in building upon piles at the waterfront.



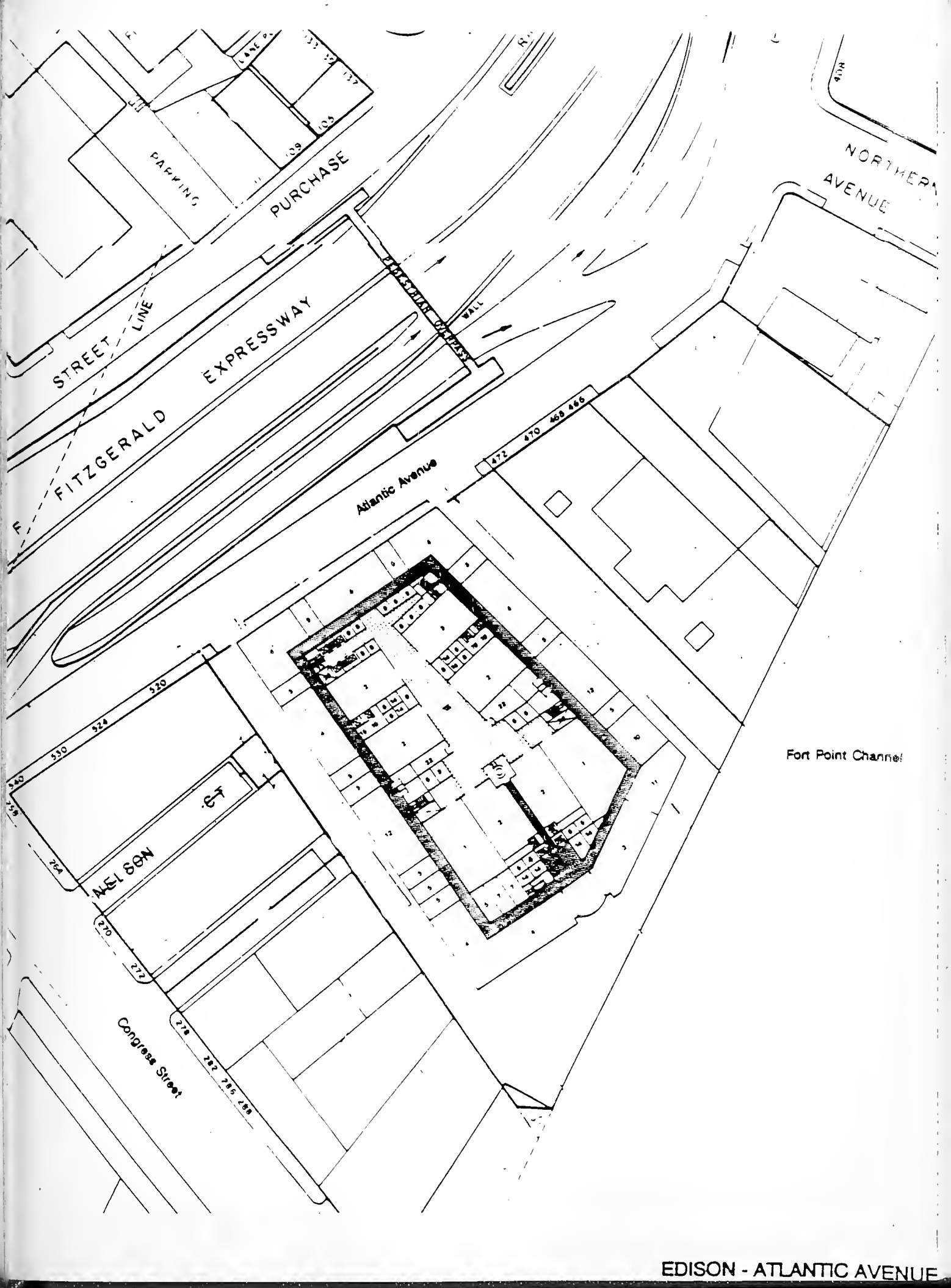
Public Transportation System
Boston Edison - Atlantic Avenue
October 1988









EDISON - ATLANTIC AVENUE
CURRENT CONDITIONS
October 1988



RECOMMENDED SITE 4 BOSTON EDISON - ATLANTIC AVENUE

Floor Plan
KEY

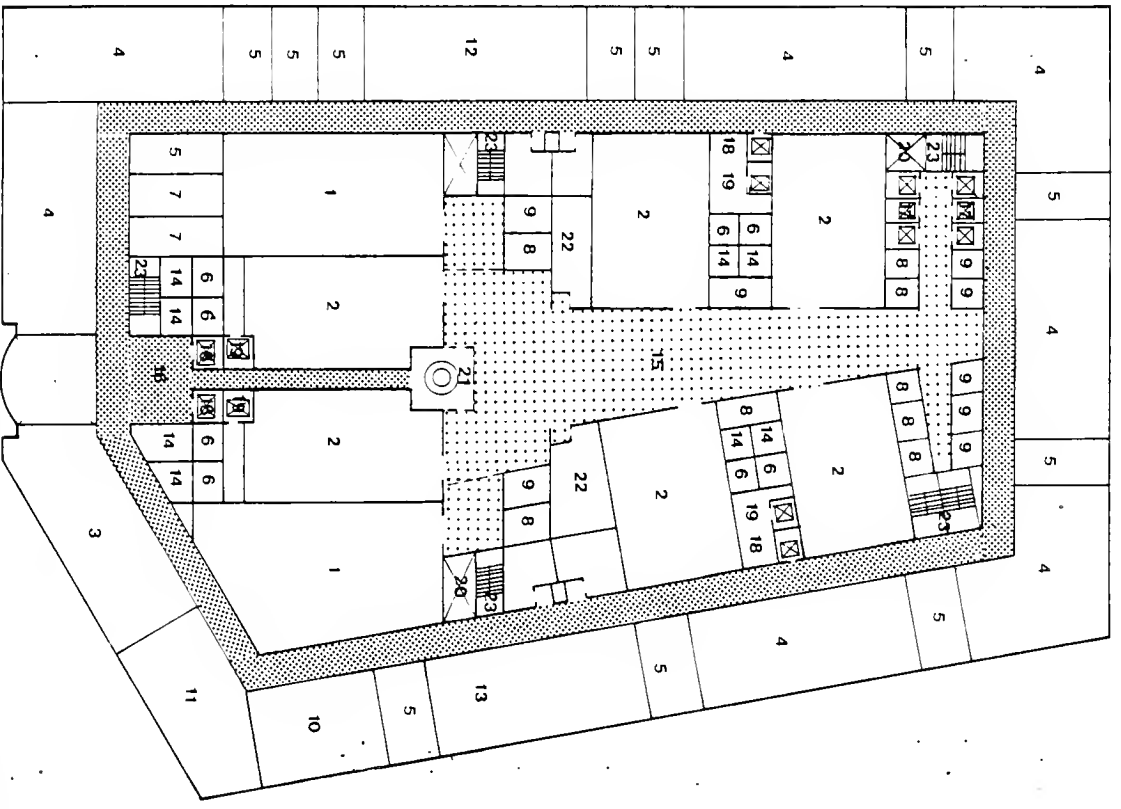
- 1 Large courtrooms
- 2 Standard courtrooms
- 3 Chief Judge's chambers
- 4 District Judge's chambers
- 5 Jury Rooms
- 6 Holding cells
- 7 Secure witness waiting rooms
- 8 Witness waiting room
- 9 Attorney consultation rooms
- 10 Senior Judge's chambers
- 11 Visiting Judge's chambers
- 12 Deputy Clerk's office
- 13 Court reporters room
- 14 Courtroom storage room
- 15 Public corridor
- 16 Secure corridor
- 17 Public elevator
- 18 Judges/Jury secure elevator
- 19 Defendant's secure elevator
- 20 Freight elevator
- 21 Security control desk
- 22 Public restrooms
- 23 Fire stairs

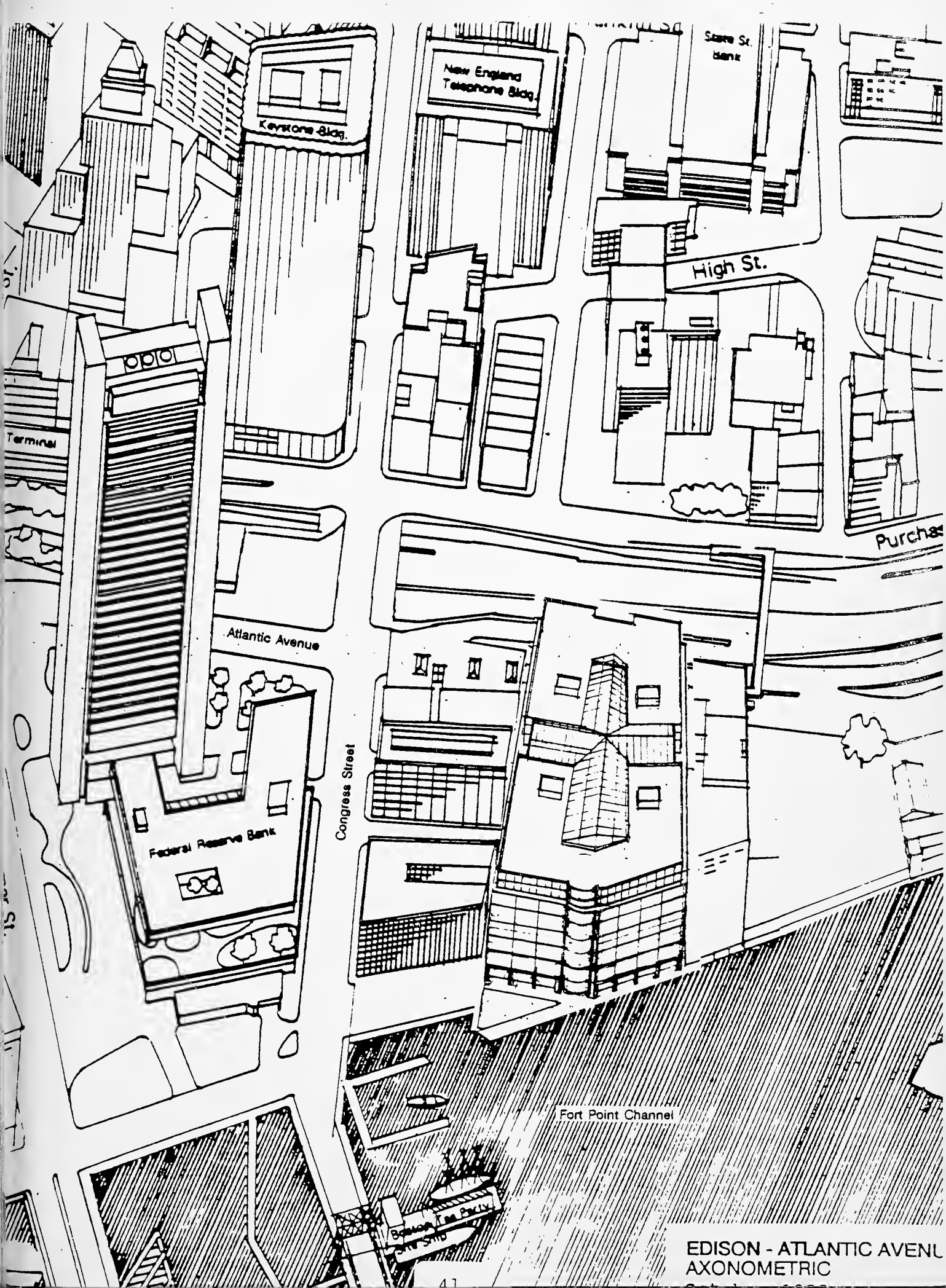
-  Public Corridor
-  Secure Corridor

Floorplate - 73,500 sq ft

Site Analysis for a Federal Courthouse

October 1988





New England Telephone Bldg.

Keystone Bldg.

State St.
Bank

High St.

Purchase

Atlantic Avenue

Federal Reserve Bank

Congress Street

Fort Point Channel

EDISON - ATLANTIC AVENUE
AXONOMETRIC

IX.

SITES NOT RECOMMENDED

SITES NOT RECOMMENDED

In order to recommend a location as a potential courthouse site, the five site selection criteria contained in the courthouse program (Chapter IV) had to be satisfied. In all, twelve locations were reviewed. Four locations have been recommended for consideration as the site of a new courthouse. The eight sites listed in this section are not recommended.

Sites #1 - #4, Hayward Place, Greyhound Station, Motor Mart Garage, and Parcel 7, were rejected because they do not meet the minimum size requirements necessary to satisfy the courthouse program. Further analysis of these sites would probably produce other impediments to their being recommended. In particular, several of the sites although assembled could not be made available for development in a timely manner.

Site #5, Lowell Square, was rejected for a combination of reasons. The site only marginally meet the minimum size requirements. The size and configuration of the site would make it difficult to accommodate the courthouse program efficiently. The site is currently the subject of litigation between the Boston Redevelopment Authority and Charles River Park Inc., which would delay the site's availability for development.

Site 6, Sargent's Wharf, was rejected for both urban design and transportation access reasons. The height and massing of a courthouse are inappropriate for this site. The North End community has recently concurred with the BRA program to develop 250,000 square feet in a mixed use project featuring at least 150,000 square feet of housing. The 535,000 gross square feet required for the courthouse far exceed what this site can accommodate from an urban design perspective. Opposition from the community to a courthouse proposal for this site would be substantial. Of the sites reviewed, Sargent's Wharf is the least accessible by public transportation.

Sites #7 and #8, Fan Pier and Northern Avenue, were rejected for transportation access and litigation reasons. Both sites are involved in ongoing litigation which will delay availability for development. Both the City and the Commonwealth are reviewing means to improve public transportation access to the area. However, such transportation improvements will not be available for a number of years.

Site #1

Site: Hayward Place
Location: Washington Street & Avenue de Lafayette
Size: 0.7 acres - 29,000 square feet
Ownership: Boston Redevelopment Authority
Current Use: Parking at grade - proposed site of mixed use development
Meets Minimum Size? No

Site #2

Site: Greyhound Bus Station
Location: St. James Avenue & Stuart Streets
Size: 0.98 acres - 42,634 square feet
Ownership: Cohen Properties
Current Use: One-story bus station
Meets Minimum Size? No

Site #3

Site: Motor Mart Garage
Location: 201-241 Stuart Street, Park Square
Size: 1.2 acres - 52,416 square feet
Ownership: M. DeMatteo Construction Company
Current Use: Multi-story structured parking garage with ground floor retail
Meets Minimum Size? No

Site #4

Site: Parcel 7
Location: Congress Street & Sudbury Street
Size: 1.3 acres - 58,587 square feet
Ownership: Boston Redevelopment Authority
Current Use: Parking at grade and MBTA subway entrance
Meets Minimum Size? No

Site #5

Site: Lowell Square
Location: Staniford Street and Merrimack Streets
Size: 1.6 acres - 69,500 square feet
Ownership: Boston Redevelopment Authority
Current Use: Vacant
Meets Minimum Size? Yes - marginally

Comments: Site configuration does not facilitate an efficient courthouse floorplate. Ongoing litigation will delay availability for development.

Site #6

Site: Sargent's Wharf
Location: Commercial Street - North End Waterfront
Size: 1.8 acres - 78,638 square feet
Ownership: Boston Redevelopment Authority
Current Use: Parking at grade
Meets Minimum Size? Yes

Comments: A 530,000 gross square feet courthouse is an inappropriate mass and use for this site in the North End neighborhood. The site lacks adequate transportation access.

Site #7

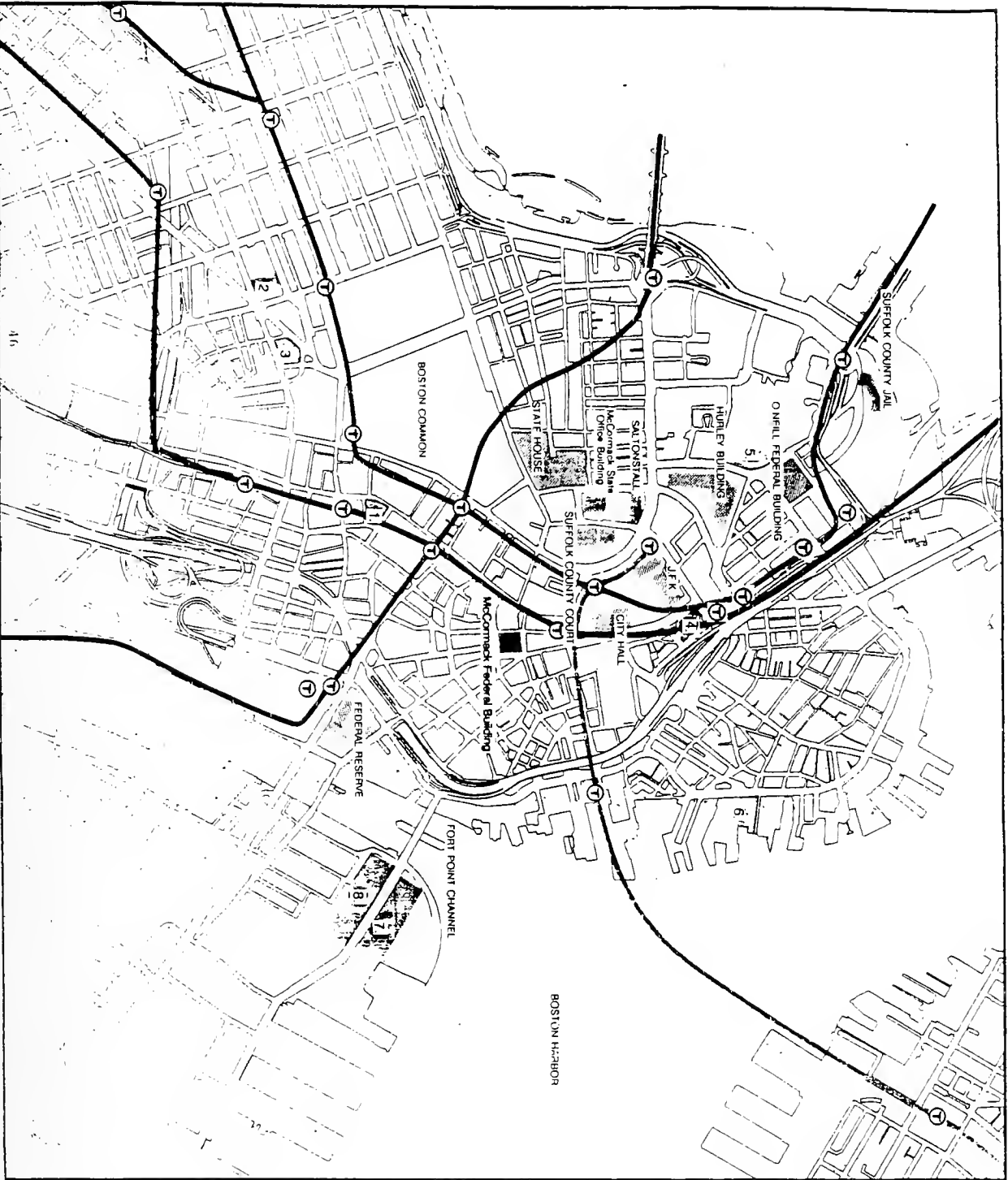
Site: Fan Pier
Location: Northern Avenue
Size: 10+ acres
Ownership: Anthony Athanas
Current Use: Parking at grade
Meets Minimum Size? Yes

Comments: Ongoing litigation will delay availability for development. Public transportation improvements will not be available for some years.

Site #8

Site:	Northern Avenue rail yards
Location:	Northern Avenue
Size:	20+ acres
Ownership:	McCourt Company
Current Use:	Parking at grade
Meets Minimum Size?	Yes

Comments:	Ongoing litigation will delay availability for development. Public transportation improvements will not be available for some years.
-----------	--



SITES NOT RECOMMENDED

- 1 Hayward Place
- 2 Greyhound Station
- 3 Motor Mart Garage
- 4 Parcel 7
- 5 Lowell Square
- 6 Sargent's Wharf
- 7 Fan Pier
- 8 Northern Avenue

Site Analysis for a Federal Courthouse

October 1988

APPENDIX

A.

ORDER CONCERNING COURT SECURITY
MARCH 5, 1987

B.

LANDMARKS COMMISSION SURVEY OF McCORMACK FEDERAL BUILDING
JUNE 1980

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

ORDER CONCERNING COURT SECURITY

March 5, 1967

It is the considered, unanimous judgment of the entire United States District Court for the District of Massachusetts that the facility in which we are charged with administering justice, the United States Post Office and Courthouse in Boston, is in a deplorable and dangerous condition. This conclusion is confirmed by the independent findings of the Circuit Executive for the First Circuit Court of Appeals and has been duly reported to that Court and the Judicial Conference of the United States. The inadequate number of courtrooms available for the business of this judicial district, the use of office space for a United States District courtroom, the hodgepodge amalgam of judicial and other governmental offices throughout the building, the inter-layering of public and private spaces within the building to the detriment of all those who use the courthouse, and elevators so decrepit as to compromise the public who ride therein, are all so well known as to require no further elaboration in this Order.

Sadly, despite the extremely competent efforts of the United States Marshal for this District and his dedicated staff, this Court, upon careful reflection, concludes that

the minimum safety requirements for those who must attend the sessions of this Court--jurors, litigants, witnesses, and court employees--as well as the members of the general public who have a near-absolute constitutional right to be present during all proceedings in open court, see Press-Enterprises Co. v. Superior Court of California, 478 U.S. ___, 106 S. Ct. 2735, 92 L. Ed. 2d 1 (1986), can no longer be met unless increased security measures are undertaken forthwith.

The Court does not reach this conclusion lightly. It recognizes the difficulties which may be imposed by the increased security measures upon those who work here or who attend court sessions in this building. Nevertheless, in view of the reports received from the United States Marshal detailing the shortcomings of building security, which are confirmed by the recent inspection of the Director of the United States Marshals Service who concluded that security facilities in Boston were the worst he had ever seen in a federal judicial facility, it would be irresponsible for this Court not to take action.

NOW THEREFORE the United States Marshal for this District is ORDERED and DIRECTED to implement forthwith such security measures as will adequately insure the safety of all persons entering and leaving the United States Courthouse in Boston; and, without limiting the generality of the foregoing, the United States Marshal is specifically authorized to establish perimeter security and a means of controlled access for the entire building.

So Ordered.

By the Court, 1991

Frank H. Friedman
FRANK H. FREEDMAN, CH. J.

Joseph L. Tauro
JOSEPH L. TAURO, D.J.

Walter Jay Skinner
WALTER JAY SKINNER, D.J.

A. David Mazzone
A. DAVID MAZZONE, D.J.

Robert E. Keeton
ROBERT E. KEETON, D.J.

John J. McNaught
JOHN J. MC NAUGHT, D.J.

Ryan W. Zobel
RYAN W. ZOBEL, D.J.

David S. Nelson
DAVID S. NELSON, D.J.

William G. Young
WILLIAM G. YOUNG, D.J.

Mark L. Wolf
MARK L. WOLF, D.J.

Douglas P. Woodlock
DOUGLAS P. WOODLOCK, D.J.

Devonshire St.Milk St.ADDRESS Post Office Sq. COR. Water St.John W. McCormack Federal Building,NAME U.S. Post Office & Courthouse (same)presentoriginalMAP No. 25N/13ESUB AREA FinancialDATE 1932-34(cornerstone laid 1/15/1932)sourceARCHITECT Cram & FergusonAABN¹(with James A. Wetmore) Tucci

BUILDER _____

sourceOWNER U.S. Government (same)originalpresentPHOTOGRAPHS 16 ³/₄ * 80TYPE (residential) single double row 2-fam. 3-deck ten apt.
non-residential federal offices, courthouse and post officeNO. OF STORIES (1st to cornice) 17 on Post Office Sq
22 on Devonshire plus _____ROOF flatcupoladomersMATERIALS (Frame) clapboards shingles stucco asphalt asbestos alum/vinyl
(Other) brick (stone granite & concrete iron/steel/alum.BRIEF DESCRIPTION Massive Moderne skyscraper with all-granite facade except
on upper 5 Devonshire floors, which are set back. 13-bay principal facades
on Devonshire & P.O. Sq. latter features a 3-bay, 4-story center entrance
section flanked by two 17-story pavilions with rising stone piers and
metal spandrels. Art Deco copper grates over basement windows & above en-
trances, stylized eagles over doors & stylized classical & natural formsEXTERIOR ALTERATION major moderate drastic (urns, palmettes, wheat shea
largely intact etc)CONDITION good fair poor LOT AREA 48,382 sq. feetNOTEWORTHY SITE CHARACTERISTICS Freestanding structure with complex massing
pattern around center courtyard on site of over 1 acre & comprising full
city block. Sloping site compensated for by varying the height of the
polished black granite plinth on which the building rests.SIGNIFICANCE (cont'd on reverse)

This monumental U.S. government office building is significant as one of the city's best examples of the Moderne style and as the work of the nationally-known firm of Cram and Ferguson. It continues in its original use as a government facility and is largely intact on the exterior and interior lobby area.

Moved; date if known _____

Themes (check as many as applicable)

Aboriginal	_____	Conservation	_____	Recreation	_____
Agricultural	_____	Education	_____	Religion	_____
Architectural	<input checked="" type="checkbox"/>	Exploration/ settlement	_____	Science/ invention	_____
The Arts	_____	Industry	_____	Social/ humanitarian	_____
Commerce	_____	Military	_____	Transportation	_____
Communication	_____	Political	<input checked="" type="checkbox"/>		
Community/ development	_____				

Significance (include explanation of themes checked above)

Ralph Adams Cram (1863-1942) was a distinguished architect, philosopher and author who became "America's leading exponent of the Gothic Revival."² Of his many fine public buildings and churches throughout the nation, the Cathedral of St. John the Divine in New York City is considered his supreme achievement.

According to an article in American Architect and Building News of 1933 entitled "The Boston Federal Building" and subtitled "It was designed by Cram and Ferguson but does not conform to Mr. Cram's philosophy of architecture the Federal Building was" outside the mainstream of modern tradition" & was designed in a style in which the architects had expressed little interest in the past. The article further states that Cram and Ferguson were commissioned to design the facade after floorplans for the building had already been prepared by the government's supervising architect. Cram and Ferguson did have freedom to choose the exterior style and also eliminated some interior details in order to allow for use of granite rather than limestone on the exterior.

Symbols used on the exterior include bundles of staves, symbolizing the proverb "united we stand, divided we fall" and "the caduceus, wand of Mercury, who was primarily the postman of Olympia. The bldg. stands on the site of a

Preservation Consideration (accessibility, re-use possibilities, capacity previous for public use and enjoyment, protection, utilities, context) Post Office & Sub-Treasury Bldg in the

Suggested for listing on the National Register as part of the "Exchange" District.

Fr. 2nd Empire style, begun in 1869.

Determined Eligible for Listing in National Register by 10/87

Bibliography and/or references (such as local histories, deeds, assessor's records, early maps, etc.)

1. Loring, Charles G. "The Boston Federal Building" American Architect and Building News, vol. 143, Nov. 1933, p. 15-19 (text, ext photo- and floorplans of 1st and 12th floors)
2. Withey, Biographical Dictionary of American Architects.. p. 145-6.
3. Power, Oct. 1932, p. 172-175. (plans, ext. photo & discussion of technical aspects of heating and lighting)
4. Douglas Shand Tucci, Built in Boston, p. 223.

ALTERNATIVE STRATEGIES
FOR MEETING FUTURE
FACILITY NEEDS

Prepared for

U.S. Court of Appeals
for the First Circuit Court

February 17, 1989

By

GA/Partners

Economic Consultants
Real Estate Counselors
Appraisers .

Washington, D.C.

UNY70701

Arthur Andersen & Co. has acquired the
professional practice of GA/Partners, Incorporated
and is continuing the business as GA/Partners.

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EXECUTIVE SUMMARY

In November 1988, the Administrative Office of the United States Courts retained GA/Partners to evaluate the economic implications of prospective plans for meeting the space needs of the Federal courts in Boston, Massachusetts. ~~GA/Partners was requested to prepare an economic analysis comparing the cost of renovating and expanding the present court facilities in the John W. McCormack Post Office and Courthouse in Boston to the cost of constructing a new courthouse on the site currently occupied by the John F. Kennedy Annex in Boston's Government Center.~~ The John F. Kennedy Annex has been identified as the preferred location for a new Courthouse. Accordingly, the John F. Kennedy Annex site is used here as the illustrative site.

Concurrently, the General Services Administration ("GSA"), in response to a request from Congress, began an independent evaluation of the need for the acquisition of a federal building in Boston, Massachusetts to meet the needs of federal agencies in Boston. The committee resolution stated that "[s]pecial attention should be given to space for U.S. Courts". GSA's present evaluation will include a revision and update of an earlier preliminary internal GSA study of the courts' housing needs in Boston. The newly requested GSA study has not been completed as of the date of this report.

~~The earlier GSA study examined three options for meeting the space needs of the courts in Boston and their associated costs, expressed in standard square feet, and encompassed: 1) leasing commercial space at a cost of \$170 million; 2) new construction at a cost of \$145 million; and 3) repair and alteration of the McCormack building at a cost of \$145.8 million.~~

Despite finding that repair and alteration would be 31 percent more expensive than new construction, the preliminary GSA report recommended meeting the space needs of the federal courts in Boston through repair and alteration of the McCormack building since:

"The plan[ned] renovation work will preserve a government asset and increase its utility...[thereby transforming]...this historic and architecturally significant building into a modern, functional and secured courthouse".

The GSA analysis did not evaluate the extent to which a major renovation project could meet the functional and security needs of the court given the configuration of the building. The structural limitations of McCormack have now been examined in a report prepared for the Administrative Office of the United States Courts by Space Management Consultants, Inc. which concludes that it is not possible to adapt the building into a functional and secure courthouse for the Federal courts in Boston.

In addition, the preliminary GSA report also did not consider the possibility of utilizing the McCormack building for its originally designed use as a federal office building or the possibility of sale of the building for private sector use.

~~The analysis which follows indicates that the most economical solution to meeting the courts housing needs would be through new construction.~~ The net present values of the three options examined for this purpose are:

<u>Option</u>	<u>Value</u>
A. McCormack Rehabilitation	\$217 million <u>1/</u>
B. JFK Site New Construction (Government Build Option)	\$193 million
C. JFK Site New Construction (Private Developer Option)	\$182 million

1/ Inclusive of McCormack improvements and land assets, and JFK Annex site value as required by directive A-104 issued by the Office of Management and Budget.

2/ In preparing this report a fourth alternative, that of rehabilitating the McCormack Building in line with recently updated GSA cost estimates, has also been evaluated. This would result in a net present value of \$187 million.

Based on a study of comparable restoration projects for historic Boston buildings at a level commensurate with the Courts standards, GSA's forecast costs are deemed unduly low and therefore inappropriate to the case at-hand. Conversely, the rehabilitation estimates reflected in the value of Option A above, derived through intensive investigations undertaken in conjunction with this analysis, conform with actual recent experience and are therefore more reliable and valid.

GSA refurbishment estimates are currently reported to be \$90 per square foot, or approximately \$20 per square foot (18 percent) lower than the \$110 per square foot for the repair and alteration of comparable historic buildings, at a quality of finish which complies with the criteria established by the U.S. Courts Design Guide.

~~These costs reflect the net present value of outflows of capital required to construct a facility (hard costs) and incorporate interest, soft costs and all costs associated with 30 years of operations including maintenance and general overhead costs.~~

The ~~undiscounted cost of construction~~ including soft costs but excluding financing interest and 30 years of operations are:

Option	Estimated Construction Cost
A. McCormack Rehabilitation (GA/Partners Cost Estimate)	\$58 million
B. JFK Site New Construction (Government Build Option)	\$115 million
C. JFK Site New Construction (Private Developer Option)	\$97 million

The GSA retained the architectural design firm of HOK, Inc. to generate a third party estimate of the renovation costs (together with preliminary bid packages) associated with the planned McCormack renovation. This study was concluded in February 1989 and concludes that the total construction cost for the ~~McCormack renovation~~, excluding architectural fees, financing interest, and operations is ~~\$115 million~~ ~~\$115 million~~. This estimate tends to confirm and further the credibility of Option A above.

The analysis which follows employs all standard analytical techniques required by the Office of Management and Budget's directive A-104. Special attention was also given to verification through independent experts of real estate market conditions as they relate to various aspects of this project. The results set forth in this report therefore represent an objective examination of the economic factors to be considered in meeting the future space needs of the Federal courts in Boston.

In summary the findings of this analysis show that construction of a new courthouse would be the most economical solution to meeting the space needs of the Federal courts in Boston.

BACKGROUND

The headquarters of the United States Court of Appeals for the First Circuit and United States District Court for the District of Massachusetts are presently located in the John W. McCormack Post Office and Courthouse Building in downtown Boston ("McCormack").

The Courts' current McCormack housing has been recently examined by the space planning firm of Space Management Consultants, Inc. ("SMC"). SMC's report concludes that "the existing physical configurations of the J.W. McCormack Post Office and Courthouse building will continue to impose serious obstacles to the efficient and secure operation of the courts regardless of the extent of renovation and reorganization made within the building".

In summary, that study indicates the present court housing arrangement is inefficient in layout and design necessitating the evaluation of alternative plans at either McCormack or at some other location.

Because of the adverse effects of the present housing situation on the Court's long-term interests, an early resolution of the Court's housing needs is of primary importance.

In November 1988, the Administrative Office of the United States Courts engaged GA/Partners to evaluate the economic effects and other salient implications of prospective plans now

under consideration to meet the Court's space requirements. The specific terms of reference for this engagement cover:

- a detailed analysis of the projected cost for constructing a new courthouse on the site occupied by the John F. Kennedy Annex building ("Annex") in Boston's government center; and
- an evaluation of the cost for renovating the present Court facilities to meet present and future needs.

These terms further directed that the cost evaluation be based on:

- government funded construction, or
- through private construction operations.

Integral to this work was to be a determination of:

- the value of the McCormack building as government office space; and
- the potential value of the facility to a private developer either as part of an arrangement including construction of a new courthouse or independently.

The United States General Services Administration ("GSA") is presently undertaking an independent evaluation of the Court's requirements which will culminate in a Needs Assessment Report as provided in Section 11B of the 1959 Public Buildings Act.

Prior to initiating that effort, GSA prepared internally a preliminary economic analysis of the Court's housing needs in Boston as prescribed and governed by OMB Circular A-104 ("A-104"). This prospectus examined three alternatives for meeting the space needs of the Courts:

- leasing space for all agencies presently occupying the facility;
- constructing a new courthouse federal building in Boston; and
- rehabilitating the current McCormack facility.

In the statement of need set forth in that document (see appendix) GSA stated:

- "It has been determined that the above project is a government need and that proposed solution (i.e. recommending repair and alteration of the McCormack building and interim lease arrangements) is the best method to meet that need within the timeframe required."

~~By means of the evaluation techniques set forth in A-104, GSA derived the following present value estimates for the options:~~

- ~~Lease option - \$179.4 million;~~
- ~~New construction option - \$111 million; and~~

-- Repair and alteration -- \$145.8 million.

In its justification for recommending McCormack's repair and alteration GSA stated:

-- "The planned renovation work will preserve a Government asset and increase its utility. This historic and architecturally significant building will be transformed into a modern, functional and secure courthouse. Mechanical system upgrading and window replacement are expected to improve energy efficiency, promoting energy conservation.

The 30-year, present value cost of this alternative (based on accomplishing the full building modernization program including elevators) is \$34.8 million more than the alternative of constructing the same amount of space. However, this significant National Register eligible building represents the major Federal judicial presence in the Boston financial district and should be maintained."

Since these findings were prepared, GSA has made various adjustments in the anticipated costs for rehabilitation. The agency is now undertaking a revised assessment of the renovation project along with the aforementioned evaluation of new construction at the Annex building site following demolition of the present improvement on that property. While of direct interest to overall government space needs, this study will not explicitly address the viability of McCormack, once renovated, to meet the functional needs of the Court. The GSA has also retained the architectural design firm of HOK ("HOK") to prepare

a third party estimate of the cost to renovate McCormack. This study states that the construction costs are estimated to be \$57 million or \$147 per square foot of rentable area. In parallel with the GSA effort the Federal Judiciary has engaged GA/Partners to assess the economic implications of these alternatives and has also commissioned SMC to:

- examine the existing McCormack building with respect to its condition, size, function and adaptability; and
- analyze the spatial needs of the Federal Courts in Boston with respect to the Court's unique functional requirements.

The results of SMC's analysis are included in a final report issued in January 1989. As noted above, the SMC study concludes that the McCormack building (despite renovation) cannot continue to function properly as a court facility and furthermore proposes as an alternative that "a new courthouse should be planned, designed and constructed in downtown Boston to meet the facility needs of the U.S. Circuit Court of Appeals and the District Court."

PROCESS

In accordance with the terms of reference, GA/Partners has evaluated the McCormack and Annex options consistent with the alternative financing methods for refurbishing the present Courthouse building or constructing a new facility at the Annex site.

This work and associated analysis has been formulated to:

- conform with standard analytical techniques utilized by GSA as set forth in the Office of Management and Budget directive ("A-104");
- incorporate recently obtained GSA adjustments to the forecast rehabilitation budget for the McCormack; and
- reflect the improvement value of the existing Annex structure as indicated to U.S. Court of Appeals officials.

Further, to reflect an appropriate degree of refinement and comparative findings, ~~this effort has been based on:~~

- ~~a program for the Court's future housing needs formulated by First Circuit officials in concert with the Court's space planners;~~
- ~~estimates of McCormack building rehabilitation costs reflected by both GSA and recent, empirical experience~~

~~for comparable rehabilitation programs in historic downtown Boston buildings;~~

- ~~a market determination of the value of McCormack predicated on its alternative use for a private sector office facility in the heart of Boston's financial district; and~~
- ~~related independent verifications of local real estate conditions bearing on the financial and government center downtown submarkets.~~

ANALYTIC FRAMEWORK

As required by A-104, and as reflected by similar public/private initiatives for new facilities in New York, Washington, D.C. and elsewhere, the paramount government objectives are to:

- minimize the occupancy cost of the Court's space to the federal government;
- eliminate major capital appropriations for project development;
- provide suitable accommodations for the United States Courts in Boston; and
- maintain or acquire ownership of whatever facility might accommodate the Courts after an appropriate interval of time.

Corresponding to A-104 directives, the method for assessing potential government costs is expressed in present value terms to assure standardized comparisons.

The approach employs conventional discounting techniques derived from the principle of the time value of money. This principle relates the idea that one would prefer to have a dollar today, invest the money for one year, and receive the dollar investment plus its return at the end of the period rather than simply receive one dollar at the end of the year.

As further described by Phyrre and Cooper in Real Estate Investment,

"... a dollar received in the future can be less valuable for three reasons:

1. Opportunity cost - earnings foregone, or the return that could have been earned if the amount to be received in the future had been available for immediate investment.
2. Inflation - the purchasing power of a sum to be received in the future may be diminished by intervening increases in the price of goods and services.
3. Certainty of payment (risk) - uncertainty associated with receiving the payment in the future. For example, obligations of the U.S. government (e.g., Treasury Bills) are considered free from the risk of loss. On the other hand, a lottery ticket bears a high degree of uncertainty. Most real estate investments fall somewhere between these extremes.

When determining the present value of future income, all three considerations must be evaluated in estimating a discount rate. ~~A discount rate is simply the investor's required rate of return (or rate of interest), taking into account opportunity cost, inflation, and certainty of payment (risk).~~"

By way of illustration, an investment of one dollar today, assuming interest earned at nine percent per annum, will be worth \$1.09 in one year and if reinvested at 9 percent will be worth \$1.19 two years hence. Conversely, \$1.09 received one year from today or \$1.19 received two years from today at the same rate of interest, would be equivalent to \$1.00 today.

Thus, by discounting construction and occupancy costs over

time, these outlays are appropriately adjusted to "present values" as if paid today.^{1/}

Two components of the net present value equation are integral to the standardized approach employed by GSA in conformance with A-104 directives:

- The first pertains to total development costs, or new construction costs over time; and
- The second relates to the stated as-is value of the government's assets for owned land and improvements.

The net present value of occupancy costs determined in this procedure, incorporating the aforementioned discounting techniques, reflects "gross development costs" including the current as-is value of the land and improvements for rehabilitation and land only for new construction. Total costs are appropriately offset by the residual value or "credit" of the pertinent government-owned asset at the conclusion of the analysis.

This analytic framework has been incorporated in an

^{1/} The timing of cash outlays and inflows influences the resultant present value equivalency calculation. A present value analysis is therefore sensitive to substantial costs incurred in the near term, much as with major renovation outlays at the beginning of building restoration. Similarly, appreciable revenues obtained further out in time have relatively less effect. Lastly, the higher the imputed interest rate (or discount rate), the lower the present value. ~~For purposes of this analysis the rate used was nine percent corresponding to the current rate of 30 year Treasury Bonds; an indicator recommended in A-104.~~

Automated Prospectus System designed for the GSA termed TAPS. This model has been employed in the analysis which follows.

In addition, GA/Partners has amplified the analytic framework in line with comparable work for the federal government and its constituent agencies in connection with several public/private ventures including the planned judiciary building in Washington, D.C. currently in negotiation with the designated developer. The nature of these modifications is explicitly identified further below in this report.

DEVELOPMENT OPTIONS FOR THE FEDERAL JUDICIARY
IN BOSTON

As stated the Court's future housing needs have been analyzed in the context of two locations:

- the first, at the J.W. McCormack Post Office and Courthouse building; and
- the second, at the John F. Kennedy Annex, part of the federal complex in Boston's government center.

Several options for the Court have been explicitly identified for each location. As seen immediately below these pertain to specific space needs and, of necessity in relation to the federal government's overall housing requirements, associated considerations for either relocating existing occupants or retenanting space vacated by the Courts.

1. McCormack Options

- Status Quo: A portion of the Courts' immediate needs through 1990 are provided by the GSA planned renovation program, which is ongoing.
- Expanded Renovation: The renovation plan is expanded to meet future court expansion needs beyond 1990. This theoretical option is not feasible based on findings of the aforementioned SMC study.

- Renovation for other GSA users: The Courts are relocated and the building is renovated and retrofitted to house other GSA agencies.
- Outright Sale: The building's intrinsic value is realized through sale "as is" to a private source, prior to any substantive renovation.

2. JFK Annex Options

- Status Quo: Current renovation plans are directed to meeting GSA prescribed housing plans thereby excluding redevelopment of the site for the courts.
- Construction of a Courthouse: The existing Annex building is demolished and a new court-specific facility is constructed in its place.

Short and Long-Term Court Program

To assure appropriately sensitive analysis reflecting changes over time, the materials which follow distinguish:

- the Court's existing space at the McCormack building;
- the projected 1990 occupancy at McCormack;
- short-term requirements thereafter, herein defined as the period between 1994 and the year 2000; and
- forecast long-term needs thereafter.

These periods coincide with a logical progression moving from the current status, to a pre-development phase (were a new facility constructed), and finally to staging plans for successive intervals of short-range (i.e. five to ten year) and long-range growth. This formulation is also helpful in standardizing the comparative analysis between the JFK Annex and McCormack options and accounting for other impacted agencies whose housing needs may necessitate leasing facilities elsewhere.

Taking those factors into consideration, the following space use programs have been identified:

~~1. Current Space Program~~

According to the November 4, 1988 GSA McCormack housing plan, the Court ~~entirely~~ ~~currently~~ ~~occupies~~ ~~total~~ ~~of~~ ~~145,300~~ ~~square feet~~.

2. ~~1990 Space Allocation (McCormack)~~

Court space at McCormack, as outlined in the GSA housing plan for 1990, is ~~185,800~~.

Once completed, the 1990 McCormack expansion will all but exhaust possibilities for future Court growth in suitable quarters, a conclusion rendered by SMC which was retained to specifically evaluate those prospects.

Unless that finding is altered and areas for additional courtrooms and related space are identified, an "expanded McCormack" option post-1990 is not warranted.

Accordingly, the potentials for meeting future needs in the balance of this century and the beginning of the next shift to constructing a new facility at the Annex site.

3. ~~Short-Term (1994-2000) Program~~

Reflecting the timing involved for reviewing various options, decisions leading to a prospective new building, and completion of such a facility, a realistic outlook for occupancy is on or about 1994.

On the expectation that the Court's needs will continue to grow, this analysis divides those needs into two intervals from:

- 1994 to 2000, and
- 2000 and thereafter.

A discontinuity in accommodating the Court's programmed expansion as a result of certain time delays warrants emphasis here. A prospective move from its present facilities may:

- necessitate "making do" with the present occupiable square feet, or, alternatively,
- involve a commitment to rehabilitate McCormack (either up to the projected 1990 program or to some reduced scale) and additional future funding to reconfigure the then outmoded (e.g., courtrooms) vacated space.

This is a matter of considerable importance to the present consideration of the aforementioned rehabilitation and new building options. A forward plan to meet the Court's needs in the early 1990s should:

- expedite the delivery of new facilities by such means possible;
- minimize the duration of time the Courts will have to function in inadequate quarters; and correspondingly,
- mitigate "sunk costs" in McCormack for facilities

requiring additional fit-up costs to meet later retenanting plans.

While those factors are not accounted for in the discrete options examined herein, they remain of the utmost importance to the decisions at hand.

With that background, the 1994-2000 Court program (advanced as a preliminary concept at this time) incorporates ~~275,500~~

subdivided as follows:

-
- 2/ This terminology (rentable) was employed by the Boston Mayor's office report of October 1988. GSA definitions of occupiable area differs from rentable area (a more typical industry standard) by the exclusion of circulation space (i.e., common corridors, building lobby, mechanical). However, since occupiable area includes shared facilities (i.e., cafeteria, health unit, child care centers, etc.). Therefore, the two measures of space were deemed approximately equivalent for the purpose of a single tenant facility.

<u>Tenant</u>	<u>Rentable Floor Area (S.F.)</u>
Courts	
Court of Appeals	66,500
District Court	<u>209,000</u>
Total	275,500
Court Related 1/	17,000
Other Government	17,000
Grand Total	209,500

1/ U.S. Attorney's Office, Strike Force, U.S. Marshal Service, Bureau of Prisons, Grand Jury, Press Room, and cafeteria.

4. Long-Term (Year 2000 thereafter) Program

Long-term plans extrapolated 20 years into the future as outlined in the Site Analysis for a Federal Courthouse produced by the Boston Mayor's office in October 1988, (as refined by court officials in Boston) delineate an overall space program of ~~1,000,000 square feet~~.

On the basis of the amended program, the long-term Court's occupancy covers:

<u>Tenant</u>	<u>Rentable Floor Area (S.F.)</u>
Courts	
Court of Appeals	
District Court	
Total	315,000
Court Related <u>1/</u>	
Other Government	- 0 -
Grand Total	

1/ U.S. Attorney's Office, Strike Force, U.S. Marshal Service, Bureau of Prisons, Grand Jury, Press Room, and cafeteria.

ECONOMIC CONCLUSIONS

The summary which follows sets out the results of this evaluation.

Alternative Facility Solutions: Two basic options have been analyzed with respect to the McCormack and JFK Annex buildings.

In the former instance, a range of rehabilitation costs is presented reflecting:

- the GSA cost estimate adjustments made in December 1988 which amount to \$90 per square foot (superceded by the estimate of \$147 per square foot derived by HOK); and
- a higher estimate developed by GA/Partners based on field investigations during this engagement.

With respect to the latter, selected comparable structures refurbished in downtown Boston have been carefully scrutinized with respect to the basic building elements and related level of finish (i.e. quality of space) created.

One of these, ~~the Tremont~~, is comparable to the quality of finish and construction desired by the United States Federal Courts in Boston. Located in downtown Boston, the building, similar in age, size, floor plate and configuration, is undergoing renovation and provides an accurate measure of

current cost information. The 72 ~~East~~ building is vacant and can be renovated without regard to existing tenants. The GSA McCormack renovation plan includes time consuming and costly efforts to ameliorate the disruption of ongoing Court affairs. After adjustments for this logistic issue, timing and likely Court specific improvements, ~~renovation costs equal approximately \$110 per square foot (excluding extensive interior space finishing).~~ 3/

The selection of this illustrative recent rehabilitation, it should be emphasized, is by no means at the upper end of similar ventures elsewhere downtown. Rather, it provides appropriate treatment of all pertinent public spaces (i.e. lobby; elevators; upper story corridors; bathroom facilities; and the like) together with a basic standard of office space finish in line with other federal public/private partnership ventures now underway.

While the precise scope of the proposed McCormack modernization program now being formulated by GSA is not available, the reported cost estimates for this effort appear appreciably lower than the magnitude of verifiable, comparable costs. Therefore, after extensive examination the GSA generated

3/ Current budgeting guidelines require that a portion of the Courts' finish costs be excluded from the total cost estimate since these tenant specific costs are billed back to the space user. A portion of the \$90 hard costs should include some tenant specific improvements such as HVAC, lighting and sound proofing. If this is the case, the GSA estimate of \$90 per square foot is appreciably below the probable total cost of renovation which would move closer to the \$110 per square foot level. Lastly, ~~the cost estimate including tenant improvements of \$110 per square foot tends to confirm the validity of the~~

budget for this purpose has been deemed inappropriate for further comparative analysis.

Correspondingly, the option covering construction of a new facility at the present JFK Annex site has also been viewed in two respects:

- the first, by means of direct governmental construction; and
- the second through a build-to-suit program in conjunction with a private developer.

These last named approaches are distinguished with regard to:

- different financing rates with more favorable levels available to the government through its Federal Building Fund (FBF) as compared to independent sources typically provided through pension funds, insurance carriers, commercial banks, and other entities or forms;
- a construction cost adjustment under the government build-to-suit program set at 15 percent reflecting differences in construction procedures and labor requirements, among other factors, as noted in a recent study undertaken for the Architect of the Capitol in connection with the new Federal Judiciary Building in Washington (see Appendix for details).

As previously stated, the concept of net present value allows for a standardized comparison of all cost factors. These are expressed in the form of ~~total development costs~~ (prior to an adjustment for the government's intrinsic asset values in land and/or improvements) ~~which include hard and soft costs for construction and occupancy costs.~~ In addition, occupancy costs include operating expenses, ongoing capital maintenance, and costs for housing agencies temporarily relocated during construction.

More specifically, the total development costs upon which net present value calculations are based cover the following:

For the Renovation of the McCormack Building:

- construction costs (hard costs);
- design, architectural and engineering, legal and other indirect costs (soft costs);
- operating expenses during stabilized operation;
- rehousing leasing costs (during temporary dislocations before permanent location into refurbished space);
- tenant finish (for partitions, outlets, and other interior space improvements); and
- interest on renovation (hard and soft) costs.

For the JFK Annex site option:

- hard construction costs;
- soft construction costs;
- operating expenses after stabilized operations;
- demolition costs (for removal of the standing improvements including asbestos removal);
- moving costs for dislocated tenants;
- financing interest on hard and soft costs.

It should be noted that the GSA has delivered a prospectus to Congress regarding proposed Annex improvements, ~~see Appendix~~, which calls for in Phase III approximately \$35 million in improvements ~~for the Annex~~. ~~The cost of the improvements will be approximately \$35 million.~~ ~~The planned rehabilitation encompasses the entire IFX complex (both structures) and incorporates the cost of space to rehouse displaced occupants in the interim.~~

The analysis herein does not cover such rehousing outlays. This conforms with explicit GSA guidelines which prescribe that only the costs of relocating (moving) occupants be considered in the event of permanent relocation. Similarly, this analysis does not incorporate the \$15.645 million planned expenditures for rehabilitating the Annex were a new building to be constructed on that site. Thus, it must be emphasized that if the Annex site proves to be the correct location for a new courthouse, under the prospectus before Congress the site would be subject to substantial renovation and rehousing costs. These

renovation funds could be otherwise employed in a more appropriate and economic manner.

The estimated costs for each of the prescribed alternatives are detailed in the Appendix to this report and summarized below:

<u>Alternatives/Cost Factors</u>	<u>Estimated Cost</u>
A. McCormack Rehabilitation Option <u>1</u> / (GA/Partners Empirical Estimate)	
Rehabilitation Costs	8110 /rentable s.f.
Tenant Fit-Up	8110 /rentable s.f. (average)
Rehousing	8110 per year for five years.
Soft Costs	100 of hard costs
Interest on Renovation Costs	10000 of funds borrowed.
B. JFK Annex New Construction (Government Build Option)	
Construction Costs	10000 /Gross S.F.
Tenant Fit-Up	10000 Rentable S.F.
Demolition	10000 /Gross S.F.
Moving Costs	10000 of rentable area.
Soft Costs	100 of hard costs
Financing Interest	10000 of funds borrowed.
C. JFK Annex New Construction (Private Build Option)	

Construction Costs	[REDACTED] Gross S.F.
Tenant Fit-Up	[REDACTED]/Rentable S.F.
Demolition	[REDACTED]/Gross S.F.
Moving Costs	[REDACTED] of rentable area.
Soft Costs	[REDACTED] of hard costs (12% plus 3% for developer fee)
Financing Interest	[REDACTED] of funds borrowed.

1/ As noted above, the GSA cost estimate for McCormack rehabilitation has been rejected here as insufficiently realistic. That estimate is as follows: Rehabilitation Costs: \$90/rentable s.f.; Tenant Fit-Up: \$17/rentable s.f. (average); Rehousing: \$1.6 million per year for five years; Soft Costs: 17% of hard costs; and Interest on Renovation Costs: 9.00% of funds borrowed.

Development Costs Present Value: Utilizing the TAPS economic model, the present value for each of these options--predicated over a 30-year term, was established.

In addition, GA/Partners analyzed each option in greater depth in line with work performed for other comparable public/private ventures. Contrary to TAPS, GA/Partners' model:

- differentiates construction/renovation costs for discrete building components (e.g., court rooms; cafeteria; holding cells, etc.) rather than a gross estimate for all space;

- delineates operating costs for the Court (reflecting higher security needs), and each of 11 other space program elements compared with a single TAPS entry;
- reflects a mid-year discounting method which replicates the actual cash inflows and outflows rather than the less sensitive end-of-year TAPS method; and
- integrates estimated demolition costs in each scenario and necessary periodic refurbishment costs in place of a "model surrogate" of a fixed annual factor to accomplish this purpose.

The resulting findings from these respective analytic approaches may be seen as follows:

<u>Option Examined</u>		Projected Dev. Costs <u>TAPS</u> <u>GA/Partners</u>	
A.	McCormack Rehabilitation Option ¹ / (GA/Partners Cost Estimate)	\$105.7	\$137.1 Million
B.	JFK Annex New Construction (government build)	\$149.6	\$177.3 Million
C.	JFK Annex New Construction (private developer option)	\$138.4	\$166.5 Million

¹/ The GSA cost estimate is as follows: TAPS: \$97.9 million;
GA/Partners: \$107.7 million.

Asset Values: In order to reach a determination of net present value for costs anticipated for the respective options examined, a value must be placed on government-owned assets for each of the scenarios set forth above.

In the preliminary prospectus regarding the JFK complex, the Gen has indicated their estimate of value for the JFK complex

is established in conversations with

Federal, Commercial, and State Agencies

and the results of these conversations are as follows:

1. The value of the JFK complex is estimated to be \$100 million.

GA/Partners has established a value for the facility reflecting:

- a theoretical disposition to the private sector were the facility sold to the private sector for purposes of a commercial office structure;
- marketplace rents obtainable under those circumstances;

- Private sector financing and discount rates;
- estimated refurbishment costs to upgrade McCormack to a quality comparable to other first-class office structures in the vicinity; and
- an estimated reversionary value of the building and land at the end of the holding period.

It should be emphasized that this approach, commonly referred to as the economic value of a real estate asset, is frequently applied in reaching an approximate value for such an asset.

If and when a disposition were seriously contemplated, a more detailed cost and market study would be undertaken together with an appraisal of the real estate in relation to "comparable" facilities. While beyond the scope of this study, such detailed research -- which would precede an actual transaction -- is not warranted to set an order of value under the present circumstances.

By means of the approach utilized, together with corollary research, McCormack has been valued at approximately \$1,200,000.

~~for land and improvements, of which approximately 25 percent,
(\$50 per square foot of improvement) is attributable to the~~

~~site.~~ Based upon the aforementioned market background
information (see appendix), ~~the value of the Annex parcel is~~
~~estimated at \$40 per square foot of improvement (405,000 S.F.)~~
~~or \$16,200,000.~~

The land value is typically expressed as dollars per square foot of building that may be supported at the subject site as restricted by area zoning regulations. The larger the structure that is permitted, the higher the value of the underlying land. Through conversations with officials at the Boston Redevelopment Authority, growth restrictions would inhibit the construction of a larger building at the McCormack site thereby retaining the current estimated land value, whereas the Annex site could support a larger facility of up to 405,000 square feet thus contributing to a greater land value than is currently achieved.

Since the Annex site is the preferred location at which to build a new court facility no value was attributed to the existing Annex structure because it would need to be demolished. Although the structure has value in terms of the overall housing plan for the GSA in Boston, additional space for the current users of the Annex site will be available when the

courts vacate the McCormack building. This method of ascribing a zero value to the Annex conforms with the conventional real estate analysis approach which equates the total value of a new structure to include the cost of demolition.

This value is consistent with the GSA estimate in the aggregate. However, it should be noted that under the TAPS program, a higher allocation of value to the land results in a lower overall cost estimate. In other words, all things remaining equal, the total costs attributable to two equivalent sites would be lower at the site with the highest underlying land value because the reversionary value is higher and is deducted from total costs. In order to conform with A-104 methodology, this analysis must account for differences among asset values. Therefore, the land and improvement values are added to the cost estimates for comparison.

Net Present Value: Taking account of the present value of projected development costs and the "credit" or additional costs associated with the government's assets at both the McCormack and JFK Annex building sites, the net present value for each of the alternatives examined may be summarized as follows:

<u>Option Examined</u>	<u>Present Value (In Millions)</u>		
	<u>Dev. Costs</u>	<u>Asset Value 1/</u>	<u>Net Present Value</u>
A. McCormack Rehabilitation 2/ (GA/Partners Cost Estimate)	157	80	\$ 217
B. JFK Site New Construction (Government Build Option)	\$177	\$ 16	\$ 193
C. JFK Site New Construction (Private Developer Option)	\$166	\$ 16	\$ 182

1/ Includes the value of land and building improvements for the McCormack building and the value of land only at the JFK Annex site.

2/ The GSA cost estimates are as follows: Dev. Costs: \$107; Asset Value: \$80; Net Present Value: \$187. This option must be dismissed in light of the precise and verifiable cost estimates incorporated in Option A. It is also not known whether the GSA cost estimate includes all tenant finish costs.

COROLLARY ECONOMIC AND NON-ECONOMIC FACTORS

The ultimate resolution of the Court's facility needs will relate to:

- the timing and adaptation of a selected plan to meet the long-range requirements forecast at an appropriate qualitative standard;
- the most favorable (i.e. least expensive) solution to the government; and
- the pragmatic implications of funding a preferred approach through either governmental or private means.

To that end, specific attention should be directed to the timing factors cited earlier, emphasizing the desirability of an expedited schedule should a new facility be selected. As noted, this would obviate the need for substantial sunk costs to restore and reconfigure space to meet the Court's longer-term requirements at the McCormack for a relatively short interim period. Stated in other terms, the opportunity to amortize that investment would be substantially compromised if, as would be the case under a new construction option, an expedient time schedule were selected for delivery of a new facility as early in the 1990s as possible.

In this connection, it bears emphasizing that the major renovation of the JFK Annex site is now tentatively planned for Fiscal Year 1993. Thus new construction, rather than renovation, could be undertaken at the site with a minimum of

additional dislocation within the optimum time frame for the Court's facility needs.

CONCLUSION

Despite higher construction costs, the total cost (asset value inclusive) of new construction is lower than the probable cost of renovating McCormack.

The findings of this analysis show that construction of a new courthouse would be the most economical solution to meeting the needs of the Federal Courts in Boston.

* * * *

APPENDIX

1. Excerpts from the GSA 1988 preliminary Management Plan and Prospectus for Repair and Alteration of the J.W. McCormack Post Office and Courthouse building in Boston.
2. Excerpts from the GSA Management Plan and Prospectus for Repair and Alteration of the John F. Kennedy Federal Building in Boston submitted to Congress in February, 1989.
3. Explanatory notes for principal cost estimates in conjunction with GA/Partners empirical rehabilitation McCormack option and associated demolition costs for the JFK Annex building.
4. Key Market Indicators, First Class Office Space, Downtown Boston Financial District Submarket.

EXCERPTS FROM THE GSA 1988 PRELIMINARY MANAGEMENT PLAN
AND PROSPECTUS FOR REPAIR AND ALTERATION OF THE
J.W. MCCORMACK POST OFFICE AND COURTHOUSE BUILDING
IN BOSTON

GSA

PBS

PRELIMINARY PROSPECTUS - REPAIR AND ALTERATION
J.W. McCormack Post Office and Courthouse
Boston, Massachusetts

Location:

J.W. McCormack Post Office and Courthouse
Boston, Massachusetts

Gross Square Feet:

664,660

Occupiable Square Feet:

388,051

Total Personnel:

1,550

Estimate Cost of Construction:

\$54,662,000

Scope:

This project will expand and upgrade court facilities, upgrade heating, ventilating, and air conditioning systems, modernize rest rooms and provide a new domestic water system; it will replace exterior windows, and upgrade building security.

Impact:

This work is the major component of a program to modernize the building to provide for the long-range space requirements of the courts in Boston.

GSA

PBS

PRELIMINARY PROSPECTUS - REPAIR AND ALTERATION
J.W. McCormack Post Office and Courthouse
Boston, Massachusetts

Prospectus Number: PMA-00134
Congressional District: 9th

Description:

This prospectus proposes the renovation of the J.W. McCormack Post Office and Courthouse (PO-CT) in Boston, Massachusetts. The McCormack PO-CT, constructed in 1933 on Post Office Square, is a 22-story building of reinforced concrete and structural steel framing. It provides a gross area of 664,660 square feet and an occupiable area of 388,051 square feet. The building houses approximately 1,550 employees of numerous Federal agencies. The primary tenants are the United States Judiciary and related agencies of the Department of Justice. It has been determined eligible for listing on the National Register of Historic Places.

This project will expand and upgrade court facilities, upgrade heating, ventilating, and air conditioning systems, modernize rest rooms and provide a new domestic water system; it will replace exterior windows, and upgrade building security. This work is the major component of a program to modernize the building to provide for the long-range space requirements of the courts in Boston.

The current office utilization rate in the building is 157 square feet per person. Despite the constraints of the building's configuration, the proposed project will improve the utilization rate to 135 square feet per person.

Agencies occupying the floors scheduled for renovation will be moved to approximately 40,000 square feet of leased turnaround space during construction. The estimated annual rental cost is \$1,600,000/

GSA

PBS

PRELIMINARY PROSPECTUS - REPAIR AND ALTERATION
J.W. McCormack Post Office and Courthouse
Boston, Massachusetts

Prospectus Number: PMA-00134
Congressional District: 9th

Justification:

The planned renovation work will preserve a government asset and increase its utility. This historic and architecturally significant building will be transformed into a modern, functional and secure courthouse. Mechanical system upgrading and window replacement are expected to improve energy efficiency, promoting energy conservation.

The 30-year, present value cost of this alternative (based on accomplishing the full building modernization program including elevators) is \$34,787,000 more than the alternative of constructing the same amount of space. However, this significant National Register eligible building represents the major Federal judicial presence in the Boston financial district and should be maintained.

Alternatives:

LEASE - Under this alternative, all agencies in the Post Office and Courthouse would be relocated to leased space. The 30-year, present value cost of this alternative is \$179,375,000.

CONSTRUCTION - This alternative proposes constructing a new Courthouse Federal Building in Boston. The 30-year, present value cost of this alternative is \$110,972,000.

REPAIR AND ALTERATION - The 30-year, present value cost of renovation of the Post Office and Courthouse is \$145,759,000.

GSA

PBS

PRELIMINARY PROSPECTUS - REPAIR AND ALTERATION
J.W. McCormack Post Office and Courthouse
Boston, Massachusetts

Prospectus Number: PMA-00134
Congressional District: 9th

Annual lease requested in this prospectus: \$1,600,000

*Design, management and inspection, and construction supervision are funded in a single design and construction services budget activity.

Statement of Need:

It has been determined that the above project is a government need and that the proposed solution is the best method to meet that need within the timeframe required.

EXCERPTS FROM THE GSA 1988 MANAGEMENT PLAN
AND PROSPECTUS FOR REPAIR AND ALTERATION OF THE
J.F.K. FEDERAL BUILDING COMPLEX
IN BOSTON

GSA

PBS

PROSPECTUS - REPAIR AND ALTERATION
John F. Kennedy Federal Building, Boston, Massachusetts

Prospectus No: PMA-90001
Congressional District: 9th

Description

This prospectus proposes renovation of the John F. Kennedy Federal Building (JFK-FB) in Boston, Massachusetts. The JFK-FB, constructed in 1967 in Government Center, is a 26-story high-rise and 4-story low-rise building providing 974,143 gross square feet and an occupiable area of 675,516 square feet (including 48,200 square feet of inside parking), housing approximately 3,800 employees. The primary tenants are Health and Human Services, Justice, labor, State and Treasury Departments as well as Congress, the Environmental Protection Agency and the Veterans Administration.

The proposed repair and alteration project will include work in five major categories: plumbing/fire protection; architectural; heating, ventilating and air conditioning (HVAC); electrical; and hazardous materials.

Work items for the plumbing/fire protection systems include the installation of a fire sprinkler system, an electric fire pump, a diesel fire pump; new sprayed-on fire proofing; new fire extinguishers; new sanitary piping; new domestic piping; new domestic piping; new domestic water booster pumps; new plumbing fixtures, including handicapped accessible fixtures; and the cleaning and insulation of the storm system piping.

Architectural work items include the installation of a new demountable partition system, the replacement of the tower lobby ceilings, the replacement of suspended acoustical tile ceilings, the replacement of carpeting with carpet tiles, the installation of new fluorescent light fixtures and the installation of ceramic wall and floor tiles in toilet rooms.

Work items for the HVAC system include the installation of a new variable air volume system and an energy management control system; the renovation of induction units and the air handling apparatus; the replacement of HVAC branch piping; installation of new chillers; renovation of the cooling towers and the

GSA

PBS

PROSPECTUS - REPAIR AND ALTERATION
John F. Kennedy Federal Building, Boston, Massachusetts

Prospectus No: PMA-90001
Congressional District: 9th

Description: (Cont'd)

condenser water, chilled water and booster pumps; and the replacement of the heat exchangers.

Electrical work items include installation of two new 2,500 KVA transformers, a new double ended switchboard and the replacement of all wiring and receptacles in underfloor raceways.

Hazardous materials work includes the removal of asbestos associated with the HVAC system, induction units and HVAC branch piping, and installation of the sprinkler system.

The project will be phased in increments over an estimated 4½ year construction period.

During construction, approximately 160,000 square feet of turnaround space will be leased. In the initial phase of construction, agencies occupying the top nine floors will be moved to the turnaround space. As Phase I is completed, some of the tenants in the turnaround space, and other tenants from within the building, will be relocated to the completed floors of the JFK Building. As the project progresses through Phases II and III, tenants will be relocated from within the building to the completed floors. Upon completion of the project, the agencies remaining in the turnaround space will return to the building. The estimated maximum annual rental cost of the turnaround space is \$6,400,000.

Justification:

The installation of fire sprinklers throughout the building is the most feasible means of providing fire protection to this high-rise structure. The asbestos fireproofing will be removed to eliminate the potential of asbestos exposure. Asbestos associated with the HVAC system, induction units and HVAC branch piping will also be removed.

GSA

PBS

PROSPECTUS - REPAIR AND ALTERATION
John F. Kennedy Federal Building, Boston, Massachusetts

Prospectus No: PMA-90001
Congressional District: 9th

Justification (Cont'd):

Upgrading and renovation of the HVAC system and replacing the inefficient light fixtures will reduce annual operating costs.

The existing partitions, suspended ceilings and carpeting will be removed and replaced due to both their age and condition and the excessive cost of preventing contamination during asbestos removal.

Replacement of domestic water piping, sanitary piping and booster pumps will avoid excessive maintenance costs. Existing plumbing fixtures will be removed to allow for asbestos removal and replaced with new water saving fixtures.

Upgrading of the electrical system will reduce costs for electricity and reduce future maintenance costs.

The office utilization rate for the JFK-FB, excluding the U.S. Courts and Congressional offices, is now 152 square feet per person. It will improve to 135 square feet following this project.

The 30-year, present value cost of repair and alteration is \$7,809,000 less than the alternative of construction, or an equivalent annual cost advantage of \$694,000.

Schedule:

FY 1988	Design Start
FY 1990	Construction: Phase I \$19,700,000
FY 1991	Construction: Phase II \$20,000,000
FY 1993	Construction: Phase III \$15,645,000 (JFK Annex site)
FY 1994	Project Completion

Statement of Need:

It has been determined that the above project is a Government need and the proposed solution is the best method to meet that need within the timeframe required.

EXPLANATORY NOTES FOR PRINCIPAL COST ESTIMATES
IN CONJUNCTION WITH GA/PARTNERS EMPIRICAL REHABILITATION
McCORMACK OPTION AND ASSOCIATED DEMOLITION COSTS
FOR THE JFK LOW-RISE BUILDING

PRINCIPAL COST ESTIMATES1. Development Costs:

Renovation costs for the existing J.W. McCormack Courthouse and Post Office were derived from GSA preliminary estimates (first scenario) and from knowledgeable market sources and indices (second scenario). In addition, the GSA retained the architectural design firm of HOK, Inc. to generate a third party estimate of renovation costs. The HOK estimate is \$147 per square foot of rentable area, inclusive of tenant finish. This figure serves to corroborate the resultant findings. A particularly relevant example employed in estimating costs is the renovation of the 73 Tremont building located at the intersection of Tremont and School Streets in downtown Boston.

The 73 Tremont building was constructed in 1895 and renovation was completed in mid-1988. The building consists of 13 stories and totals 340,220 square feet of usable area (296,000 square feet are allocable to office and retail space -- the balance is parking and mechanical areas) and 358,519 square feet of gross area.

Total hard costs for the renovation of 73 Tremont, in 1987 dollars were reported to be \$22.5 million. Base building renovation costs were budgeted for \$17 million with \$5.5 million of tenant improvement costs equating \$57 and \$18.61 per square foot of usable area, respectively. The building was vacant during construction allowing engineers and contractors full access to the building during normal

working hours. The McCormack renovation is planned around continued building occupancy. As a result, much of the work will be done during off hours (nights and weekends) at higher corresponding wage scales. Allowing upward adjustments for logistics, time (mid 1987 costs) and to reflect a 15 percent differential between rentable and usable area, the costs were approximately \$75 and \$24 respectively. The renovation costs were further adjusted upward to account for the high costs of specialized improvements not relevant in the 73 Tremont project including upgraded elevators, court security systems, holding cells and highly improved judicial chambers. It was determined that the probable costs attributable to renovation would increase by 40-50 percent. Accordingly, renovation costs were determined to be \$110 per square foot of rentable area in 1989.

Demolition costs were derived by consulting industry experts and experience with similar projects nationwide. A significant unknown factor is the extent and form of asbestos contamination. A total of \$25 per gross square foot formed the basis for demolition costs originated by attributing \$20 per gross square foot for asbestos removal and \$5 per gross square foot for physical demolition.

An additional unknown factor is the effect of subsurface conditions. It was assumed that no toxic materials exist on site and that no underground utilities or mass transit lines would inhibit construction.

A report issued by the architectural firm of 3D/I in 1987, assessed the differences in construction costs between the private and public sector. The greatest cost difference

occurs because the public sector cannot involve a contractor in the early phases of development and is inhibited by the mandated use of standard design guidelines. As a result, the contractor's suggestions for cost savings and new types of engineering strategies to increase efficiencies not yet included in guidelines cannot be incorporated into the design in a cost efficient manner. The change orders resulting from errors and omissions are thus greater and increase hard construction costs 5 to 10 percent. The private sector incorporates contractor suggestions at an early phase and is more likely to employ refined engineering techniques. As a result, the private sector does not usually exhibit cost increases of the size evidenced in the public sector. Other selected factors attributable to increasing costs for public construction projects include:

- 2) Davis Bacon Act - requiring prevailing wages of the majority of the labor force in the area, whether union or non-union;
- 3) Purchasing - Since the private sector may contract for supplies at an early date if price increases are expected (a type of forward contract) overall costs may be reduced. However, a contractor in the public sector is involved much later in the project.

These factors tend to increase hard construction costs 6 to 8 percent. If the midpoint of both the estimated construction and miscellaneous cost premiums are summed, the public sector will incur a cost premium of 14.5 percent above the private sector.

2. Development Timing:

The development plan of a new courthouse consists of a three year construction period (excluding the planning phase) based on a similar project: the Foley Square Courthouse in New York City, New York. An additional 12-month interval was included in the program for relocating current tenants, asbestos removal and demolition of the existing Annex structure.

A two year timeframe was used for renovation of the J.W. McCormack building. This period was deemed appropriate by the GSA and confirmed as proper by industry sources. However, this has often been exceeded on other GSA administered construction projects due to the factors outlined above.

3. Soft Costs:

Soft or indirect costs were determined to be 17 percent of hard costs in each GSA build scenario. This cost component is comprised of architectural/design fees and construction supervision costs. In general, design fees range from 8-10 percent of total project hard costs. Supervisory fees are based upon total project hard costs and range from 5-12 percent. Accordingly, these costs are estimated to be 17 percent although these may vary according to the magnitude of the construction project. The GSA does not further differentiate soft costs to reflect the costs of permits, licensing, legal and

accounting fees. Private soft costs were determined to be 15 percent inclusive of a developer fee of 3 percent.

4. Tenant Improvements:

Similar to construction costs, standard tenant improvement costs for the Court were determined to be \$20 with above standard improvement costs of an additional \$25 per square foot of rentable area. Non-Court space was determined to have an improvement allowance of \$10 and \$15 per square foot for standard and above standard tenant finish costs.

5. Borrowing Rate:

According to Office of Management and Budget Circular A-104, the appropriate borrowing rate for calculation of total construction costs for a project built by the public sector, is equivalent to the U.S. Treasury cost of funds for the applied analysis horizon. The analysis time frame is 30 years of operations and therefore the 30 year Treasury Bill yield rate is the appropriate borrowing rate for this application. Currently, this rate is approximately 9.00 percent.

The private sector cannot access capital as readily as the U.S. Government. Typical lending sources including pension funds, insurance companies and national banks provide project financing at rates tied to specific increments above comparable Treasury instruments of similar duration. Surveys of these lenders reveal a typical increment or "spread" above Treasury rates of 150 basis points (1.5 percent). Therefore, the equivalent borrowing rate for private sources would be 10.50 percent.

The borrowing rate is applied to total construction cost to derive the interest due on the loan. Interest is then included as part of total development costs.

6. Asset Value:

The Automated Prospectus System ("TAPS") requires an estimate of the existing as-is value of both the land and improvements (land only in new construction scenario). These values are reflected in the first year of the analysis as project costs whether or not the property is already owned and controlled by the GSA. The as-is improvement value, in the case of renovation, is augmented by an arbitrary percentage (standard in TAPS is 80 percent) of the renovation costs to reflect increased asset value resulting from modernization and upgrading. The land value is presumed to increase at a defined rate (typically 4-5 percent per year) over the projection period to reflect land value appreciation. The improvement value is presumed to appreciate at a slower rate due to the inherent physical depreciation of the asset over time. At the termination of the analysis, these escalated values are discounted to reflect current value and then deducted from total costs. The resultant net present value is the reported cost of the alternative under consideration.

The GSA has informed Federal Court officials in Boston that the GSA estimates of the land and building values for the McCormack building are \$45 and \$30 million respectively and the improvement value of the JFK Annex is \$30 million. GA/Partners has completed an analysis of the McCormack building and derived a value of \$80 million allocating

\$19.5 million (25%) to the land and \$60.5 million to the improvements. The focus of this assignment was confined to illustrative construction of a court-specific facility on the Annex site. In this perspective, the Annex facility cannot have value because it must be demolished to accommodate a new facility. This is in accordance with real estate analysis doctrine and the perspective of the analysis. From the GSA perspective, however, the loss of the Annex structure (and its value) would be a salient issue. In this regard it must be noted that the loss of the 388,000 gross square foot Annex (it would be replaced with a presumably more efficient court facility of approximately 506,000 gross square feet) might be somewhat offset by the court vacating space in the McCormack building.

In conclusion, it was determined that the existing Annex improvement value is nominal under the assumption it is to be demolished (the value would equal the demolition costs).

7. Interim Housing:

This refers to the cost of renting space to house agency users displaced during renovation or construction of a project. In the case of the McCormack renovation, the GSA has estimated an annual need of 40,000 square feet accounting for an annual interim housing rental outlay of \$1.6 million during a five year period. This is intended to span the construction and development timeframe. GA/Partners has completed a study of the Boston office market to confirm market rental rates and terms and identify other trends and influences.

An examination of GSA policy guidelines, as well as other case studies, reveals that no single policy governs cost allocation for interim housing or new housing costs for current tenants in the case of building demolition to accommodate new construction. The bulk of the available data suggests an approach that accounts for the one-time relocation costs (moving etc.) associated with the permanent displacement of space users. This has been reflected in the analysis.

KEY MARKET INDICATORS, FIRST CLASS OFFICE SPACE,
DOWNTOWN BOSTON FINANCIAL DISTRICT SUBMARKET

Market Overview

The downtown Boston office market is comprised of the following submarkets or districts: Financial District, Back Bay, North Station, Charlestown, Fort Point Channel, and South Station/Leather District. The McCormack building is located in the Financial District and the JFK Annex is located on the border of the North Station submarket and the Financial District. Other comparable properties are situated in Government Center, which borders the Financial District and North Station submarkets.

In 1987 and 1988 the Boston office market was characterized by declining leasing activity and rising vacancy rates. As of September 1988, the vacancy rate (excluding sublease space) was 8.9 percent, up from 7.5 percent in 1987. Sublease space increased during this time period. The growth can be attributed to the delivery of over 3 million square feet of office space in 1988, together with a contraction in space needs in the service sector. An additional 3 million square feet will be available for delivery by 1991, thereby exerting upward pressure on vacancy rates. Absorption levels rebounded to 1.8 million square feet during the first three quarters of 1988, from a low of 1.1 million square feet during all of 1987. From 1984 through 1986, annual absorption averaged 2 million square feet per year, a level approximately equal to each corresponding yearly increase in supply. The near term outlook indicated vacancy rates will increase slightly and level off with the corresponding rental concessions declining over time.

Financial District

The Financial District comprises the highest quality, Class A office space in the Boston metropolitan area. Primary space users in the Financial District consist of professional service firms and financially related businesses. The district has the highest primary space rental rate of all the submarkets, an average asking rate of \$20.00 per square foot, and the greatest supply, over 23 million square feet. Currently, over 2.7 million square feet is under construction for delivery within the next two years. Approximately 40 percent of the space is pre-leased.

Slow economic growth has dampened employment gains and delayed business expansion plans. This factor, coupled with a high level of construction, has rapidly increased vacancy rates and lowered absorption levels. As a result, aggressive rental concessions of 10 to 20 percent are prevalent. Concessions are typically found in the form of free rent and above standard improvements. The rent ranges from \$10 to \$12 per square foot, term and 12 months minimum lease term. The cost of operating expenses during the free rent period is "net lease" above standard tenant improvements. All values range from \$10 to \$12 per square foot. These concessions have induced space users to sign new leases before the termination of current leases. Thus, a larger amount of sublease space is becoming which exacerbates the overall vacancy rate. The majority of sublease space is small modules of approximately 10,000 to 15,000 square feet, with few large blocks of contiguous sublease space available.

According to Marshall and Green, vacancy rates (excluding sublease space) in the Financial District rose from 6.7 percent in December 1987 to 17.9 percent in September 1988. Correspondingly, the sublease vacancy rate, as a proportion of total occupied stock, rose from .9 percent to 2.6 percent. Annual net absorption dropped from 1.15 to .62 million square feet. Rental rates have been adversely affected by falling absorption and the growth of the sublease market. Rates in the Financial District dropped from \$36.19 to \$35.84 gross for existing buildings from year-end 1987 to September 1988.

Back Bay

Between 1983 and 1988, the Back Bay submarket exhibited a substantial increase in office space supply. The inventory increased from 5.4 to 7.8 million square feet. Supply, measured from 1987 to 1988, has grown 16 percent, an increase 1 million square feet. Correspondingly, the vacancy rate during the period doubled from 2.7 to 5.5 percent, but nevertheless remains the lowest of all Boston submarkets. Annual absorption levels have risen from 70,000 square feet in 1987, when there was little excess supply and no new space delivered, to 670,000 square feet in 1988. In addition, ~~several new buildings under construction~~. As a result, the newly created overhang of supply and high vacancy rate should decline to previous years levels by 1989-1990. The strength of this submarket, despite these current negative trends, is buttressed by the escalation in rental rates from \$28.54 gross in December 1987 to \$29.75 gross in September 1988.

North Station

North Station is the smallest office market area, as measured by total supply. The demand for office space remained steady from 1987 to 1988 at 500,000 square feet per annum. However, delivery of 170,000 square feet of space in relation to static demand produced a negative net absorption rate equal to the increase in supply of 170,000 square feet. As a result, the ~~vacancy rate increased from 22.3 percent to 32.3 percent.~~ If annual demand levels evidenced between 1985 and 1987 averaging 120,000 square feet reappear, the current oversupply should be absorbed within the next two years.

In addition, demand for office space in this area is expected to increase significantly, due to the development plan for the area and most significantly, construction of the new Boston Garden Complex.

Charlestown

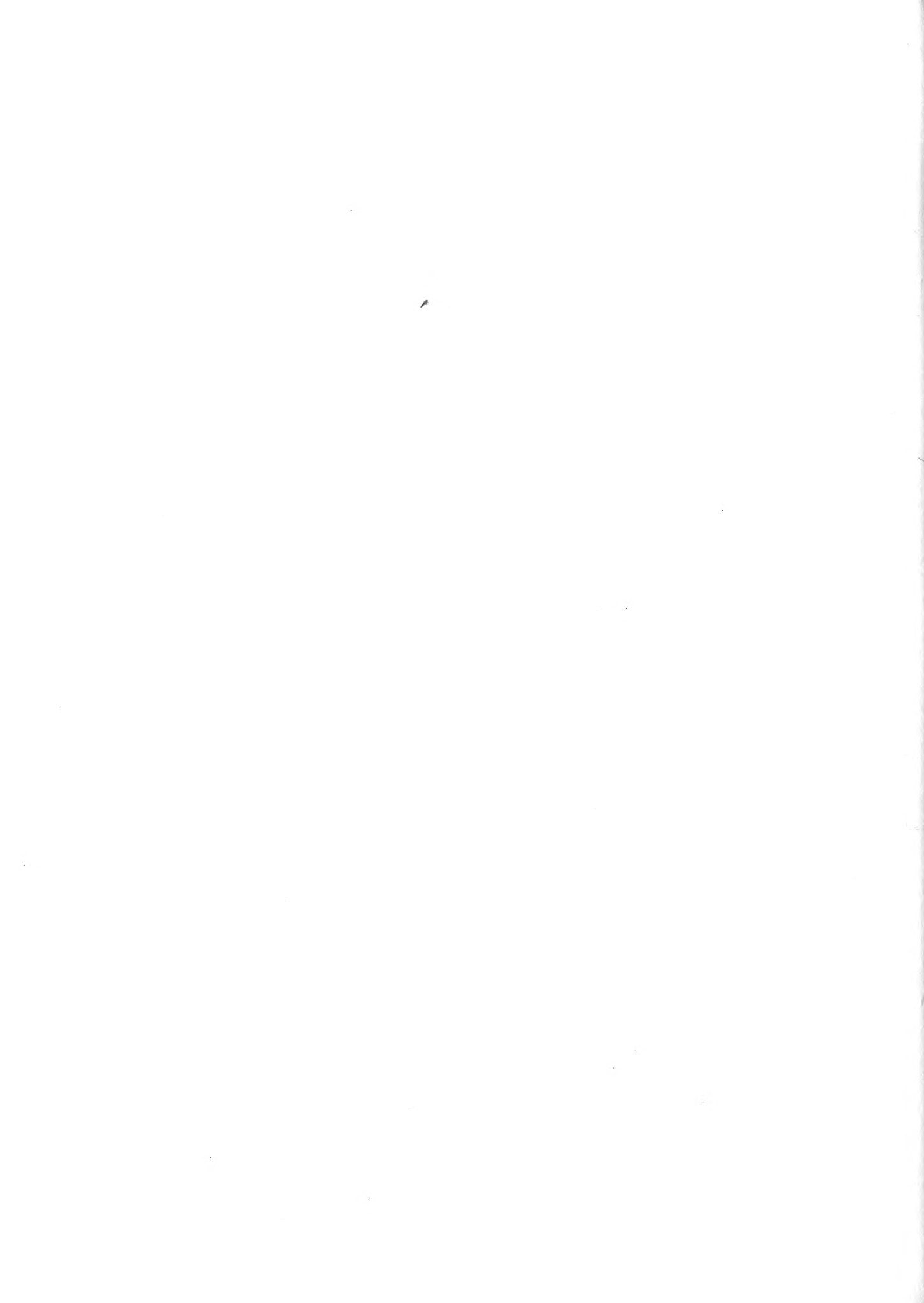
During the past year, the excess supply in the Ch~~arlestown~~ market has been absorbed and vacancy rates have declined ~~from 25.8 percent in 1987 to 2.8 percent in 1988.~~ (No information was available on the sublease market.) Asking rental rates rose to \$20.71 gross in September 1988 from \$20.19 gross in December 1987, however, these rates are the lowest of all the submarkets studied. Currently, there is 105,000 square feet of office space under construction, and approximately 25 percent has been pre-leased.

Fort Point Channel

During 1987, the inventory of office space in the Fort Point Channel submarket increased by 45%, (600,000 square feet) and related vacancy rates doubled from 14 to 29 percent. During 1988, supply increased by only 10,000 square feet while demand increased to 150,000 square feet, thereby absorbing much of the overhang, and reducing the vacancy rate to 22 percent. As a result, asking rental rates increased from \$20.88 to \$21.86 per square foot, gross.

Leather District/South Station

A redefinition of the boundaries of the Leather District/South Station submarket in 1988, makes comparison to previous years' statistics impossible. Currently, this district has 1.5 million square feet of office space with a corresponding 14.8 percent vacancy level. One project is currently under construction that will deliver an additional 165,000 square feet of space, thereby increasing the total square footage in this submarket by 10 percent.



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The right courthouse site

A proposal to build a federal courthouse in the Government Center is a long-overdue solution to the problem of inadequate court space at the John McCormack building in Post Office Square. The General Services Administration, which oversees federal office space, should make a speedy decision in favor of the new building.

The McCormack building was just right for the somnolent federal court of the 1930s. During 1933, the year that it opened, 119 new cases were filed in the Appeals Court, and 1,307 were filed in the US District Court. The lone appeals judge and two district judges had adequate courtroom space with plenty of room left over for other federal agencies.

In the decades that followed, the number of judges increased to handle a huge increase in cases, forcing many federal agencies to move to other buildings. By 1988, three appeals judges were handling 1,239 new cases each year, and 13 district judges were assigned 3,769 cases.

But even with the extra space, the McCormack building is inappropriate. Because it is narrow and 22 stories high instead of low and wide, judges, defendants and jurors are compelled to mingle in elevators and hallways.

"It's the worst federal courthouse in the country," said US District Judge Douglas Woodlock. "It's just an office building in which somebody put some courtrooms."

The GSA, aware of the space crunch and the need to repair the aging McCormack building, is thinking of a total renovation, presumably giving the courts still more space, but

that will not solve the problem of inappropriate design. Judges wonder where they will conduct trials while workmen gut the building.

Because of a chance conversation between Judge Joseph Tauro and Mayor Flynn, the judges secured the help of the Boston Redevelopment Authority and John Connolly, the mayor's development adviser. The BRA surveyed the downtown area for possible sites and decided that Government Center would be best.

The BRA proposes that a courthouse be built on the site of the four-story annex to the John F. Kennedy building. There will be no loss to the city if that drab building is replaced. Construction of a courthouse would also provide an opportunity for a long-needed redesign of the vast and empty City Hall Plaza.

The Government Center site would put the courthouse in easy reach of public transportation and a short walk across Cambridge Street from the Suffolk County Courthouse.

Costs need to be carefully weighed. A courthouse could cost \$90 million to \$110 million, compared with \$55 million for the McCormack renovation. Judge Woodlock believes that over the 30-year life of a new building, the higher construction cost would be made up in lower operating costs. Sale of the McCormack building could offset much of the cost of the new building.

The GSA, which has begun a study of courthouse space, should make its decision quickly. A new courthouse is needed now, and Government Center is where it should be built.



Sunday Boston Herald

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Case for new federal courthouse in Hub

THE 55-year-old John W. McCormack Federal Building in Post Office Square has long since outlived its usefulness as a courthouse.

It has 20 courtrooms jammed into a floorspace that was intended to hold only three. Those courts are scattered over six of the 22 floors in the tower; chambers for the 21 judges who sit there are scattered over 13. Its physical structure, lacking separate elevator, corridor and stairway systems for court officials, defendants and the public makes it so vulnerable where security is concerned that it has been necessary to move at least one major trial elsewhere.

In short, it is simply too crowded, too inefficient and too vulnerable to serve the public purpose for which it was built — and the \$55 million the government plans to spend on a renovation project won't remedy its built-in inadequacies.

All these facts make the case that what is needed is a new, larger, more secure and efficient building with more floorspace, more courts, more judges' quarters, better security and better access to public transportation, parking and the Suffolk County courthouse.

Between them the judges and the city of Boston appear to have settled on the four-story annex of the JFK Building in City Hall Plaza as the most suitable site for a proposed \$110 million high-rise replacement. We believe they've chosen well.

The property, which runs along Sudbury and New Congress streets, is already owned by the federal government — a fact which alone could cut construction time by 18 months. It is large enough to accommodate the 24 courtrooms the district and appeals court judges will need. And it could provide a much-needed development boost to an area which really hasn't had one since Old Scooley Square was torn down to make way for the new Government Center.

The state's congressional delegation supports the idea, the General Services Administration (which owns the property) is receptive to studying it and City Hall Plaza would be enhanced by it.

There is, in short, every reason to move this project forward. We urge that this process begin without undue or unwarranted delay. A new federal courthouse in Boston deserves a high priority by Washington.

LAWYERS COMMITTEE FOR A NEW
FEDERAL COURT HOUSE IN BOSTON

RESOLUTION

WHEREAS, there is a need for court house facilities in Boston which will currently and in the future be safe, secure and convenient for judges, jurors, lawyers, defendants in custody and the general public, and meet the public's demands placed upon the federal trial and appellate courts; and

WHEREAS, the existing John W. McCormack Post Office and Court House in Boston, built in 1933, is inadequate to house the main offices and courtrooms of the United States Court of Appeals for the First Circuit and the United States District Court for the District of Massachusetts; and

WHEREAS, the cost of renovation of the existing McCormack Building exceeds the costs of constructing a new court house.

BE IT RESOLVED:

(1) because of the space limitations and unique configuration of the existing McCormack Building, extensive renovations of the McCormack Building to improve the court facilities will not be satisfactory, and this short-term solution ought not be pursued; and

(2) there ought to be a new federal court house in Boston, and the appropriate federal officers and agencies in the Executive Department of the United States and the Congress of the United States are urged to take necessary and appropriate action to this end

February 13, 1989

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